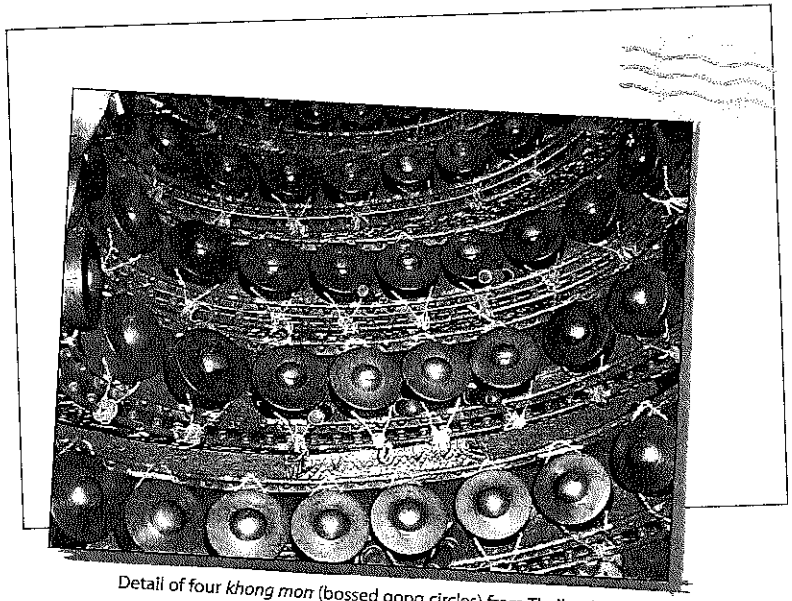


Detail of four *khong mon* (bossed gong circles) from Thailand

CHAPTER 2

Aural Analysis: Listening to the World's Music

How to Listen to World Music

The primary objective of this book is to expose you to some musical traditions from several cultures around the globe. Learning something about the music of other people is like gaining a window into another world and is a chance to explore the creative power of humanity. The ability to recognize various musical traditions and express some knowledge about them is a good start toward crossing the cultural boundaries that often divide us. This book is not only about world music; it is about people and cultures as well.

Some music traditions are easy to recognize, whereas others require you to develop a systematic method for identifying what you hear. Each person's method will undoubtedly be different, but here are some initial suggestions as to how to listen to unfamiliar world music:

- Begin by listening to the music examples included with this text before reading any of the material.
- Remember your initial gut feeling. Often times your first impression of a musical sound helps you remember that sound in the future. Is the music familiar sounding or completely alien? Do you like it or does it make you want to skip to the next track? Does the music seem busy, cold, happy, relaxing, heavy? Does it sound like rain, whale calls, a screeching owl, a music box? Any image you can use later to help you recognize the music will be helpful.
- Make the music samples part of your daily life, even if you don't like every example. Many new musical sounds require you to develop a taste for them before they can be appreciated. Listen in your car, before you go to bed, or while exercising, walking the dog, cooking, and so on.
- Use the book to help you better understand the form and intent of each example. It is necessary to read each chapter to connect what you hear with what you know. If you don't know anything about the type of music you're listening to, what you hear won't mean much. You may enjoy the music, but you can't fully appreciate it unless you understand what's happening and why.
- You'll know you are "familiar" with a particular musical example when you can recognize it after just a few seconds of listening, and answer "yes" to the following questions: Do you know which country the example comes from? Can you visualize the instruments, imitate the sound of the music, and anticipate changes in rhythm? Immediately knowing in what contexts the music is performed, or with which religion it is associated, is also an indication that you are becoming familiar with the tradition it represents.
- Don't limit yourself to the musical examples provided with this text. Find other recordings of the same types of music and compare them with the given ones. Identify the commonalities in musical sound so that you're able to recognize the tradition, not just the example.

Remember, music is universal, but it is not a universal language. Understanding world music requires an open mind and a willingness to acknowledge that other perspectives, ideas, and attitudes are equally as valid as your own. Our world is "smaller" than it has ever been in history. You will undoubtedly meet people from many of the places discussed in this book. Knowing something about their music can help you communicate with them, and may lead to cultural experiences you would never have anticipated. So, listen with your mind and your emotions, as well as your ears.

"Talking" about Music

Every discipline, be it physics, economics, or art, has its own jargon, a vocabulary that must be learned. Music is no exception. Because

music is conceptual, its components require names in order for discussion to occur. Music terms such as *melody* and *rhythm* are familiar to most readers, musician and nonmusician alike. Other terms, such as *heterophony, idiophone,* or *rhythmic density* usually require some explanation. This chapter seeks to put all readers on an equal footing by explaining basic music concepts, as well as introducing certain terms peculiar to the discipline of ethnomusicology.

A musical sound has four basic components: timbre, pitch, duration, and dynamics. *Timbre,* or the quality of a musical sound, is inherently linked to a *medium*—that is, to the object or person producing the sound. *Pitch* is most often expressed as a frequency, such as A = 440 Hertz (Hz). Your ear recognizes discrete pitches based on their specific frequencies. *Rhythm* depends on durations of sounds, which are often organized into regular patterns. Finally, *dynamics* denotes the volume, or relative loudness or softness, of a sound, and can be measured in decibels (dBs).

MEDIUM
The source of a sound, be it instrument or voice.

TIMBRE
The tone quality or "color" of a musical sound.

Timbre and Medium

The easiest way to learn to recognize a world music tradition is to become familiar with its media—that is, with the sounds of its typical instruments and vocal styles. In order to identify a specific medium, we must first become familiar with its characteristic timbre or "color." Most terms used to describe timbre are based on analogies between musical sound and everyday physical and sensory experience. Terms such as *nasal, dark, mellow, strained, rough, soothing,* and so on, are highly subjective when applied to music, but are nevertheless helpful in describing "aural color."

Just as we distinguish visually between red, blue, and green, so too we distinguish between different aural "colors"—that is, between the characteristic timbral qualities that define the sounds of, say, the trumpet, the violin, and the flute. (Compare CD I, track 1 and CD II tracks 25 and 36.) In the case of "visual color," determining the differences among red, yellow, and green is fairly easy. In order to differentiate between evergreen, lime, and emerald, however, one must possess a sharper eye. Similarly, while it may be easy to hear the difference between a violin and a trumpet, learning to distinguish among the similar sounds of a banjo, koto, and sitar may take some time even for an attentive listener. (Compare CD I, tracks 5 and 16.) Fortunately, in addition to timbre there are other elements that can help you identify what you are hearing: such as pitch, rhythm, dynamics, style, and various extramusical factors.

When listening to an example of an unfamiliar music tradition for the first time, you must first determine whether you hear voices, instruments, or a combination of both. (Compare CD II tracks 15, 27, and 31.) The next step is to identify how many voices or instruments you hear. Either you will hear a soloist or an ensemble. (Compare CD I,

tracks 16 and 17.) If what you hear is an ensemble, determine whether it is a small group, such as an instrumental trio or vocal duet, or a large ensemble, such as an orchestra or choir. (Compare CD II, track 1 and CD I, track 31.) The larger the ensemble, the more difficult it will be to distinguish specific media. However, this very difficulty may help you hear the ensemble as a whole rather than as individual performers. Once you have determined roughly how many performers there are, the next step is to try to identify each medium specifically.

Vocal Timbre

In the case of voices, you should be able to distinguish between male and female voices fairly easily, primarily based on their ranges.

An Inside Look

Bruno Nettl

Dr. Bruno Nettl, Professor Emeritus, University of Illinois

I got into ethnomusicology in the most conventional way—by taking an elective course in 1949 at Indiana University—in one of the very few schools offering such courses. I think what turned me on to this field was the immense variety of musical sounds produced by the world's cultures; and the many different kinds of ideas about music—what it is and what it can do—that one finds in the world. I began by studying the music of Native American societies, particularly of the Northern Plains, and then went on years later to do fieldwork in Iran, and eventually found my way to India, all the while teaching undergraduates and graduates at the University of Illinois in Urbana. I've been in this profession for a half century and so have had, over the years, to change my mind about many things, and to learn new ways of studying and doing research.

Today's younger students can hardly believe the kinds of technology we had (or didn't have) in the 1950s. But I think I can identify three questions that have motivated me all these years. They are related, as you'll see. About the musics of the world, I keep wondering what it is that causes a society to have, or maybe to select, a particular kind of music for itself. Why does Native American music sound as it does? Why is the music of Iran so different from the music of Japan? When it comes to doing research, I've been concerned with understanding the differences between the ways the people in a society perceive their music, and the cultural outsider's perspective, and ways to reconcile the inevitable differences. As a teacher, I've been particularly concerned with finding ways for helping students of Western, mainly classical, music to see this music in the context of a world of musics, trying to understand why it developed the way it did, learning to value it as an expression of its culture while learning to appreciate and comprehend the world of musical sounds and musical cultures.

(Compare CD II, tracks 11 and 19.) While range is a concept related to pitch, voices can also have timbral qualities that will help you to identify what you hear. Certain traditions feature distinctive vocal timbres that make them as easily distinguishable from other traditions as bluegrass is from European opera.

Instrumental Timbre

In the case of instruments, timbre is closely related to instrument construction. The study of musical instruments is known as *organology*. Essential to organological study is the classification of instruments. In the European art music tradition, instruments are classified into five basic categories: strings, wind, brass, percussion, and keyboards. This system, however, does not work well when applied to the rest of the world's musical instruments.

In the field of ethnomusicology, the *Sachs-Hornbostel* system, created by German musicologists Curt Sachs and Eric M. von Hornbostel, is the dominant system used to describe and classify instruments. The four primary categories are *aerophones, chordophones, idiophones,* and *membranophones; electrophones* have become a fifth category. An instrument is classified according to what part of the instrument vibrates to produce the sound. Within each of these primary categories are several subcategories. Knowledge of only the more common subcategories is usually enough to help you perceive the timbre of a musical instrument. The more discretely you can subcategorize an instrument's construction, however, the more accurately you will understand how the construction affects the unique timbre of the instrument.

SACHS-HORNBOSTEL SYSTEM
Standard classification system for musical instruments created by Curt Sachs and Erik M. von Hornbostel.

ORGANOLOGY
The study of musical instruments.

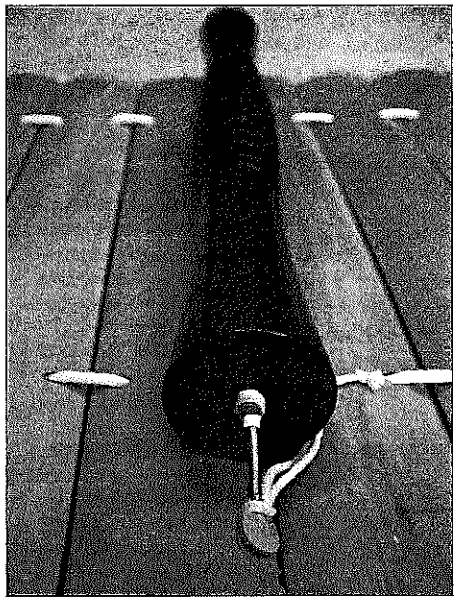
AEROPHONE
Instruments that require air to produce sound—namely, flutes, reeds, trumpets, and bellows-driven instruments.

CHORDOPHONE
Four types of stringed instruments: lutes, zithers, harps, lyres.

Aerophones: Flutes, Reeds, and Trumpets

Aerophones are defined as those instruments that produce sound through the direct vibration of air, rather than through the vibration of air by another medium such as a string or membrane. Aerophones are typically divided into three categories: *flute, reed,* and *trumpet* instruments. Flutes are defined as instruments in which a column of air is split on an edge. (Listen to CD II, track 36.) Reed instruments have one or two small pieces of material, such as cane, bamboo, or metal, that vibrate when air is blown over or through them. (Listen to CD II, track 9.) Trumpets require the performer to vibrate the lips, rather than a reed, as they blow air into the instrument. (Listen to CD I, track 24.) Recognition of the characteristic timbre of flutes, reeds, and trumpets is an important first step toward becoming a discriminating listener. Keep in mind, however, that these terms refer to general categories, not specific instruments such as the European ("silver") flute or brass trumpet.

A Japanese *noh kan* horizontal flute

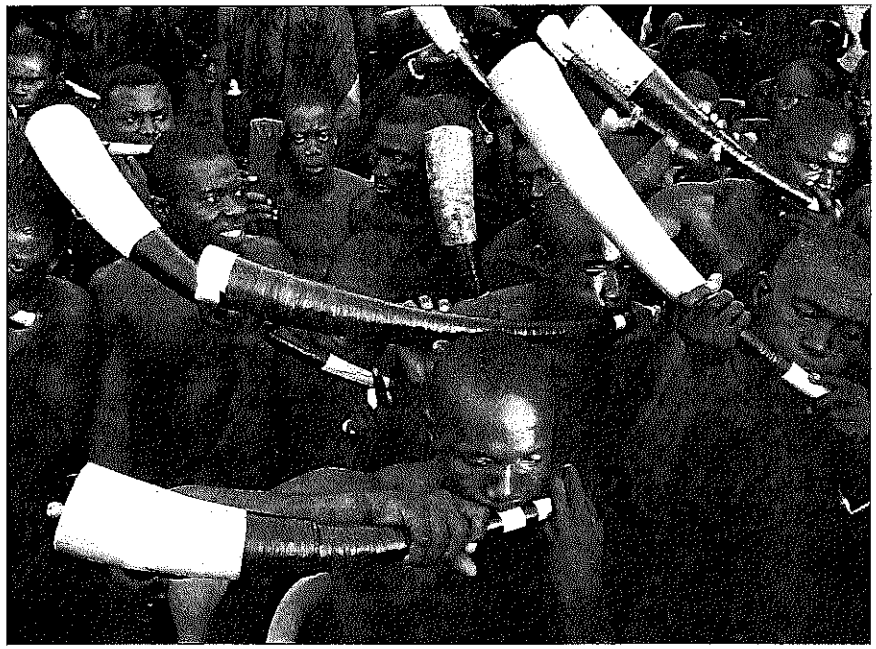


Double-reed aerophone *(pi)* from Thailand

Chordophones: Lutes and Zithers

Chordophones are defined as having one or more strings stretched between two points. Sound is produced when a string vibrates. There are many chordophones in the world of music, but two basic types, *lutes* and *zithers,* comprise the majority. The relative size of the resonating body is the key feature that distinguishes a lute from a zither. The strings of a zither are stretched parallel to the entire sounding board, as with a piano. Thus the whole instrument acts as a resonator. (Listen to CD I, track 27.) In addition to a resonating body, a lute has a neck, which allows a performer to vary the acoustical length of a string to produce different pitches, as with a guitar. Because its neck does not act as a resonator, a lute generally has less resonance than a zither of the same size and its sound dissipates more quickly. (Listen to CD II, track 32.)

The most common zithers are either



The *ntahera* ivory horn ensemble of the Asantehene, Kumase, Ghana
(Joseph S. Kaminski)

The Finnish *kantele* zither

hammered, as with the piano, or plucked, as with the Japanese *koto,* while lutes are generally either plucked, as with a guitar, or bowed, as with a violin. A hammered zither tends to have a more reverberant sound timbre than other types of chordophones. The resonance of a plucked lute will die away almost immediately as the vibration amplification of each note diminishes. (Listen to CD I, track 26.) The sounds of a plucked lute or zither are further distinguishable by whether a plectrum or a finger plucks the string. The string vibration of a bowed lute is continuous for as long as the bow is pulled across the string; thus, the sound does not immediately fade until the bowing stops. (Listen to CD II, track 25.)

FRET
A bar or ridge found on chordophones that enables performers to produce different melodic pitches with consistent frequency levels.

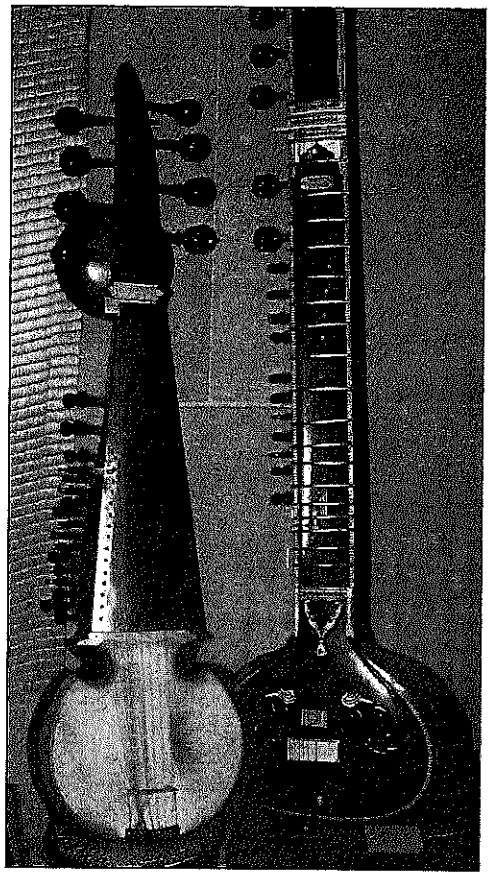
IDIOPHONE
Instruments that themselves vibrate to produce sound, such as rattles, bells, and various other kinds of percussion.

MEMBRANOPHONE
Instruments, such as drums, that use a vibrating stretched membrane as the principle means of sound production.

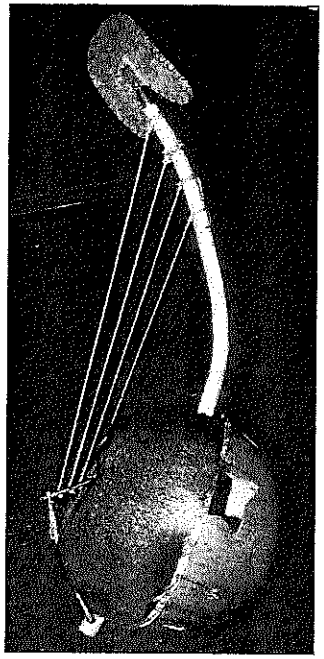
In addition to being plucked or bowed, lutes are either *fretted* or *fretless.* A fret is a straight bar of wood, bamboo, or metal placed on the neck of a lute so that it runs perpendicular to the direction of the strings, as seen on a guitar. This enables an exact pitch to be played each time the performer presses the string against the fret. A fretless lute allows the performer to slide the finger between pitches, potentially sounding all of the frequencies between two distinct tones. (Listen to CD I, track 5.) Fretted lutes are more likely to be plucked than fretless lutes, which are more frequently bowed. This is due to the fact that plucked lutes sound tones of short duration, while bowed lutes can sustain longer tones.

The Turkish *tanbur* lute

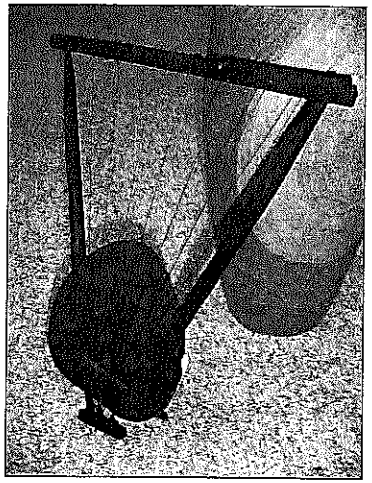
Based on their construction, other major chordophones fall into the *lyre* and *harp* categories. The strings of lyres and harps are suspended by an open frame and are most often plucked. The string plane of a harp, in particular, runs perpendicular to the



L to r: Fretless lute *(sarod)* and fretted lute *(sitar)* from India



West African bridge harp



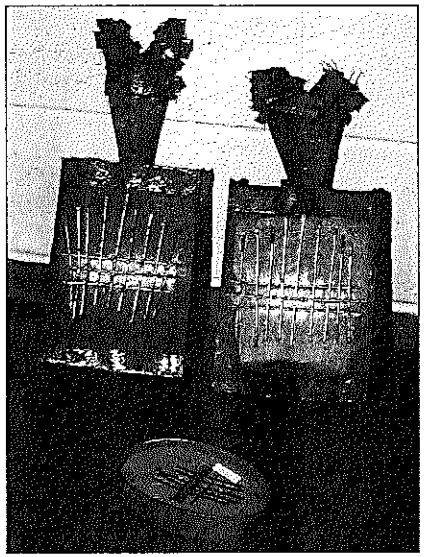
Ethiopian Lyre

resonating body. The timbre of lyres and harps is generally difficult to distinguish from that of lutes and zithers, though visually the construction is quite distinct.

Idiophones: Plucked, Struck, and Shaken

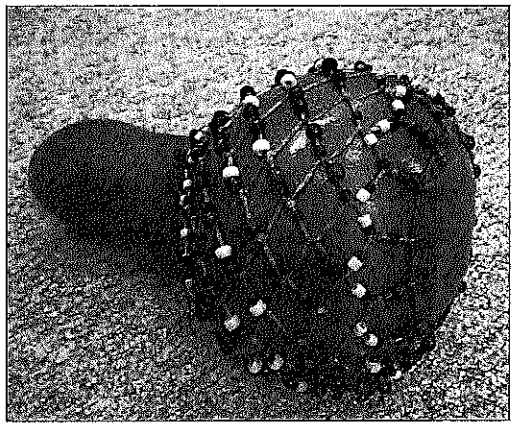
Idiophones are defined as those instruments that produce sound through the instrument itself vibrating *(idio* meaning "itself"). A good sound can be easily produced on most idiophones. Practically anything can be considered an idiophone, from bottles, to slamming doors, to change in your pocket. Bells, rattles, and a variety of other percussion instruments are common idiophones in a musical context. Most idiophones fall into one of three categories: *plucked, struck,* or *shaken.*

Small, plucked idiophones are often a type of *lamellophone,* meaning that they have a *lamella* (tongue or prong) that is flexed, and then released, causing a brief sound before the vibrations of the *lamella* come to rest. (Listen to CD II, track 1.) The music box, with its prongs, or keys, is probably the most familiar example of a *lamellophone.*



Three lamellophones from sub-Saharan Africa

Struck idiophones comprise the most varied category and include gongs, bells, wood blocks, and just about anything else that can be struck. (Listen to CD I, track 9.) The great many timbres associated with such instruments are not easily generalized, though the sharp initial attack of the sound is a typical feature. Shaken idiophones are most often rattles. (Listen to CD II, track 1.) Most rattles have a hollowed center that is filled with small objects, such as pebbles, seeds, or sand. When the instrument is shaken, the particles bounce against the outer instrument causing it to vibrate. Other rattles are constructed so that the small particles are loosely fixed to the outside of the object, such as with leg rattles.



Gourd rattle *(shekere)* from sub-Saharan Africa

Membranophones

Membranophones are defined by having a vibrating membrane, usually animal skin, that is stretched over a frame. This category encompasses the majority of drums found in the world. The different types of drums are categorized on the basis of body shape—some, for example, are goblet-shaped, while others are barrel-shaped—and according to whether they are single- or double-headed. Most drums are struck with either the hand or some implement, usually a stick. (Compare CD I, tracks 5 and 32). There are too many kinds of drums throughout the world to make generalizations about

Goblet drums *(djembe)* from sub-Saharan Africa

timbre; however, smaller drums usually have a higher, tighter sound, while larger membranophones are deeper and earthier in character. Becoming familiar with the unique sounds of different drums takes time and effort. The essential first step is being able to distinguish between struck membranophones and struck idiophones. Not all membranophones are struck, however; those that are not—such as friction drums and "singing membranes" (i.e., kazoos)—are less common but particularly unique in timbre. (Listen to CD II, track 23.)

Summary

Learning to distinguish among aerophones, chordophones, idiophones, and membranophones is the first step in training your ear to listen attentively to world music. Being able to recognize subcategories within these instrument groups greatly enhances your appreciation of sound and helps you to identify the music you hear more quickly. You will encounter many similar types of instruments, such as the Japanese *shakuhachi* and the Native American flute, that are hard to distinguish from each other based on timbre alone. Fortunately, other aspects of musical performance such as pitch, rhythm, and dynamics can help you identify the tradition you are hearing. Differences in timbre, however, are most often what distinguish the sound of two instruments, even when all other aspects are identical. Familiarize yourself with the unique "aural colors" of each recorded example supplied with this text before trying to tackle the often more complicated issues associated with musical creation.

PITCH
A tone's specific frequency level, measured in Hertz (Hz).

Pitch

Every sound can be described as having either a *definite* or *indefinite* pitch. A definite pitch is determined by the dominance of a specific frequency level; for example, the Euro-American "concert pitch," A above middle C, has 440 Hz as its dominant frequency. Definite pitches are those used to produce melody and harmony. (Listen to CD II, track 26.) An indefinite pitch is one made up of a cluster of more or less equal

frequency levels—that is, no one level dominates. Indefinite pitches, such as those produced by handclaps or rattles, are most often used in a rhythmic capacity. (Listen to CD I, track 4.) While indefinite pitches are regularly found in music traditions throughout the world, the varied uses of definite pitch is more often the primary focus of musical activity; therefore, the term *pitch* hereafter refers specifically to definite pitches.

Tuning System

The term *tuning system* denotes the entire collection of pitch frequencies commonly used in a given music tradition. Tuning systems are culturally determined. Our ears become accustomed to the tuning system of the music we hear on a regular basis. When we hear an unfamiliar tuning system, certain of its pitches may sound "out of tune" because we have been culturally conditioned to accept other frequency levels as "correct." Pitches with frequency levels significantly different from those in our accepted tuning system often sound strange.

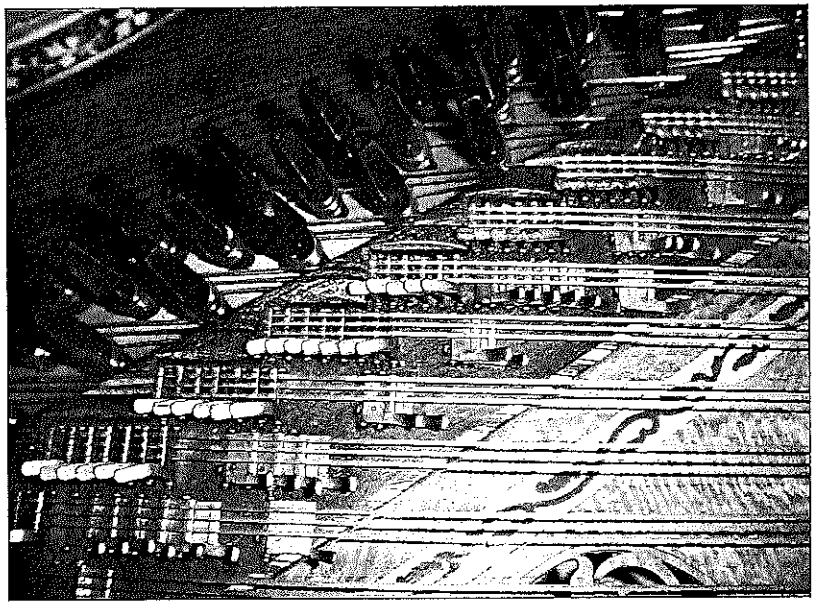
TUNING SYSTEM
The pitches common to a musical tradition.

The basis for most tuning systems around the world is the *octave*. An octave is produced when the frequency level of a specific pitch is either doubled or halved. Pitches that are an octave apart (or a series of octaves apart) are considered to be the "same" even though they have different frequencies. The easiest way to understand this concept is to listen to a man with a "low" voice and a woman with a "high" voice sing the "same" pitch. Our ears sense that the two pitches are equivalent even though the man may be singing at a frequency level of 220Hz, while the woman sings at 880Hz, two octaves higher.

In the most commonly used European tuning system (equal-tempered tuning), the octave is divided into twelve equal parts. In the Thai classical music tradition, however, the same octave is divided into only seven equal parts. (Compare CD I, track 11, and CD II, track 8.) Consequently, the pitches common to the European tuning system sound different than the pitches common to the Thai tuning system. The tuning systems common to some traditions use more than thirty discrete pitches within a single octave. After extended exposure to a different tuning system, your ear will become accustomed to its standard frequency levels. Even before this, however, the very "oddness" of an unfamiliar tuning system may help you recognize the musical tradition to which it belongs.

Scale

While a tuning system encompasses all of the pitches commonly used in a music tradition, a *scale* consists of a set of pitches (generally expressed in ascending order) used in particular performances. For example, a pentatonic scale *(penta* meaning "five," and *tonic* meaning "tone") uses only five tones. (Listen to CD I, track 17.) Different pentatonic scales can be derived from a single tuning system, as long as



Tuning pegs and micro-tone tuners of the Turkish *kanun* zither

the number of pitches available within a tuning system is greater than five. Thus, pitches 1, 2, 3, 5, and 6 from a particular tuning system may constitute the pentatonic scale for one performance, while pitches 2, 4, 6, 8, and 9 from that same system may form the pentatonic scale for a different performance. Scales, in some music traditions, are limited to as few as two or three pitches, while other traditions regularly use a greater number of pitches.

Interval

An *interval* is perhaps best thought of as the "distance" between two pitches. Intervals are described as either wide or narrow. A wide interval—such as that from *A* ascending to *G*—is one with a large difference in frequency levels, while a narrow interval—such as that between *A* and *B*—is one with a relatively smaller difference. Likewise, the interval between the bottom and top pitches of an octave is wider than the interval distance of any two pitches within the octave. The difference between narrow and wide intervals can be both seen and heard. On a piano, for example, the size of an interval can be understood visually in terms of the distance between a pair of keys, and aurally in terms of the frequency levels the keys sound. A tradition that prefers either wide or narrow intervals may be easier to recognize as a result.

Range

Range refers to the span of pitches a given instrument or voice is capable of producing. It is described as being wide or narrow, as well as high or low. An instrument with a narrow range is capable of producing fewer pitches than an instrument with a wide range. Instruments with wide ranges, such as the piano, are typically, though not always, larger than those with narrower ranges, such as the harmonica. Vocal ranges can vary substantially: trained professionals practice to extend their range, sometimes to more than three octaves, while an average person has a narrower vocal range of roughly two octaves or less.

Ranges are also characterized in terms of where they fall on the spectrum from very low-pitched sounds to very high-pitched sounds. An instrument or voice may have a relatively high or low range in comparison to other musical media. A female, for example, generally has a higher vocal range than a male. Instruments also often have characteristic ranges; a violin, for example, uses a high range, while a tuba plays in a low range. (Compare CD I, tracks 18 and 24.)

Melody

A *melody* is defined as an organized succession of pitches forming a musical idea. These are the "tunes" that characterize a specific composition, such as "Twinkle, Twinkle Little Star." Because pitches exist in real time—that is, because they have a duration—rhythm also is always a key component of melody. Ask your teacher to play a descending C major scale on any instrument. Do you recognize a melody? Not unless you consider a scale a melody. Now ask your teacher to play the beginning of "Joy to the World." The addition of rhythm to the same pitches creates a recognizable musical idea, or melody.

MELODY
An organized succession of pitches forming a musical idea.

MELODIC CONTOUR
The general direction and shape of a melody.

DRONE
A continuous or repeating sound.

Melodic Contour

A melody can be described in terms of its *melodic contour,* or shape. "Joy to the World," for example, has a "descending" melodic contour as the pitches descend from high to low (see figure 1). Melodic contours are typically drawn as a graph representing the direction of the melody. It is often useful to graph the contour of a melody to identify regularly occurring features characteristic of a music tradition. For example, our graph of a Native American Plains Indian chant reveals a characteristic "cascading" melodic contour, reflecting the Plains Indian practice of holding certain pitches longer than others in the course of a descending melodic line (see figure 2; listen to CD II, track 35.) Drone pitches can be represented as horizontal lines, while chords (several pitches played at once) may be represented with vertical lines, as in our graph of Irish bagpipe performance (see figure 3; listen to CD II, track 9.)

Figure 1. Descending Melodic Contour.

Figure 2. Cascading Melodic Contour.

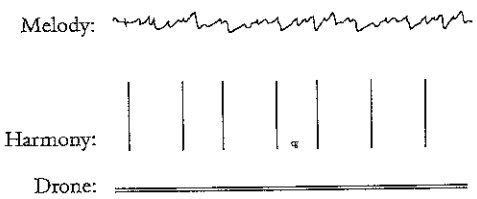


Figure 3. "Irish Bagpipe Melodic Contour."

Ornamentation

Ornamentation consists of embellishments or decorations that are applied to a melody, and thus modify the original musical idea. Some traditions have elaborate systematic procedures for ornamenting a melody, while others place less emphasis on ornamentation or shun it altogether. Ornamentation can consist of just a few added notes or of a long series of tones meant to display a performer's skills or make the basic melody more interesting. (Listen to CD I, track 6.)

Text Setting

Text setting, a term limited to vocal performance, is the process of combining music and words. Settings can be one of two broad types, depending on the relationship they establish between syllables of text and individual sung pitches. If each syllable of a text corresponds to one pitch, the text setting is considered *syllabic*. If, however, several pitches are sounded for a single syllable of text, the setting is considered *melismatic*. It is perhaps best, however, to think of most text settings as being on a continuum between the purely syllabic and the purely melismatic. Most vocal performance falls somewhere on this continuum, most frequently toward the syllabic side. (Compare CD I, track 25, and CD II, track 3.) However, some traditions strongly emphasize either syllabic settings, as with popular rap music, or melismatic settings, as with African-American spirituals.

TEXT SETTING
The rhythmic relationship of words to melody; can be syllabic (one pitch per syllable) or melismatic (more than one pitch per syllable).

Rhythm

Rhythm is essentially the relationship of sound durations. Some rhythms fall into regular patterns, while others are less predictable.

RHYTHM
The lengths, or durations, of sounds as patterns in time.

Beat and Tempo

Beat is a regular pulsation of sound. The simplest example is your heartbeat, which pulsates at a relatively fixed rate. (Listen to CD II, track 25.) This rate, or speed, is called *tempo*. The tempo of your heartbeat increases when you become more physically active, whereas its speed decreases when you sleep. In the same way, musical tempo can be described as relatively fast or slow in relation to a basic beat.

Accent and Meter

An *accent* is an emphasized beat. Accents frequently signal a particular kind of musical activity or a specific stage in a performance or piece. For example, the louder sound of accented beats may correspond to dance steps or signal the end of a performance. Accents are often used to indicate the underlying rhythmic structure of a musical performance. In many traditions, this structure is based on a system of grouping beats into regular units. Such grouping of beats is known as *meter*.

Most meters can be considered as either *duple* or *triple*. When groups of beats are divided by two, the meter is duple; when the beats can be divided by three, it is triple. (Compare audio CD II, tracks 10 and 22.) Meter may be articulated aurally by a single instrument, such as a woodblock, sounding the basic beat. More typically, however, the meter is implied through the use of rhythms that elaborate on the basic beat to make the music more interesting. In some musical traditions meter can be asymmetrical; in others, it can be organized into long cycles. (Listen to CD I, track 21). Understanding these meters is important, but hearing them is often difficult. In other cases, musicians do not think in terms of meter, but how rhythms relate. Ascribing a meter to such traditions can detract from appreciating the musician's approach to music-making.

The opposite of metered music is music in *free rhythm*. (Listen to CD II, track 27.) Such music has no regular pulse, as is the case with speech. Without a beat to follow, a meter cannot be established. If you cannot easily snap your fingers to a piece of music, it is probably in free rhythm. Such freely rhythmic music is usually highly ornamented, and when performed vocally tends to have melismatic text settings.

Rhythmic Density

The term *rhythmic density* refers to the relative quantity of notes between periodic accents or within a specific unit of time. Rhythmic

Xylophones *(gyil)* from Ghana (Amy Unruh)

density can be described as a continuum between low and high (or thin and thick). Long sustained tones in free rhythm with little melodic activity have a low rhythmic density in contrast to music with a steady, usually quick, tempo and numerous notes of short duration. (Compare CD I, track 16, and CD II, track 2.) If the music sounds "busy," the rhythmic density is generally high (thick); if it sounds "relaxed," the density is most likely low (thin).

Phonic Structure

PHONIC STRUCTURE
The relationship between different sounds in a given piece; it can be either monophony or some form of polyphony.

MONOPHONY
Music with a single melodic line.

POLYPHONY
The juxtaposition or overlapping of multiple lines of music; the three types of polyphony are homophony, independent polyphony, and heterophony.

The term *phonic structure* (also described as *texture)* refers to the organizational relationship between or among musical sounds. A single line of music, whether performed by a soloist or in unison by an ensemble, is described as *monophonic* (adj.) or *monophony* (n.), mono meaning "one," as long as the performers play the same pitches with the same rhythms. (Listen to CD I, track 25.) Music featuring melodic lines performed an octave apart, as when a male and female voice sing the same line of music in different ranges, is still considered monophonic.

Multiple lines of music (or parts) performed simultaneously are considered *polyphonic. Polyphony* has three primary subsets: *homophony, independent polyphony,* and *heterophony.* The term *homophony* refers to multiple lines of music expressing the same musical idea in the same meter, *homo* meaning "the same." Music that is homophonic requires the use of at least two pitches played simultaneously at an interval other than an octave. In Euro-American musical traditions such music is referred to as *harmonic,* a description that generally implies the use of *chords,* or combinations of three or more tones that are blended together simultaneously to produce *harmony.* Because harmony generally supports a melody, most homophony can be described as melody with chordal accompaniment. (Listen to CD II, track 29.)

Independent polyphony consists of two or more lines of music expressing independent musical ideas. Each line of music is played or sung in relation to the others without any single line dominating. (Listen to CD I, track 34.) This concept covers a variety of possibilities from European strict counterpoint to styles in which the voice and instrumental accompaniment are melodically independent.

The term *heterophony* refers to simultaneous variations of the same

line of music, *hetero* meaning "different" or "variant." As such, heterophonic music requires more than one performer, each performing the same melody, but differently either in terms of pitch, rhythm, or both. (Listen to CD I, track 17.) Each manifestation of the melody is shaped by the idiomatic characteristics associated with the performance style of each instrument or voice. A single melody played by two performers, one of whom adds frequent ornaments to the melody, is considered heterophonic in structure. Complex heterophonic structures are especially common throughout much of Asia.

Dynamics

The term *dynamics* simply refers to the relative volume of a musical sound. The relative loudness or softness of a music can be a distinguishing characteristic of its performance. (Listen to CD I, track 15.) A gradual increase in volume is known as a *crescendo,* while a gradual decrease in volume is called a *decrescendo.* These and other terms related to dynamics are often derived from the European art music tradition. Most others, such as *forte* (loud) or *pianissimo* (very quiet), are not commonly used in ethnomusicological writing.

Form

Another important feature of music is *form.* This term refers to the overall pattern of a piece of music as it unfolds in time. Form may be likened to architectural design, in that it provides the underlying structure over time that gives a musical performance a predictable or coherent shape. Some kinds of music follow a preexisting form, with, for example, an established beginning, middle, and ending section, while others have less obvious organization. The forms used in one world music tradition may vary greatly from those used in another tradition. Becoming familiar with some of these forms will help you recognize certain traditions, and will also help you understand how particular performances are conceived of by performers and audiences alike.

HOMOPHONY
Multiple lines of music expressing the same musical idea in the same meter.

INDEPENDENT POLYPHONY
Multiple lines of music expressing independent musical ideas as a cohesive whole.

HETEROPHONY
Multiple performers playing simultaneous variations of the same line of music.

Fundamentals of Music

Here's a summary of the basic terms we introduced in this chapter.

TIMBRE. The tone quality or "color" of a musical sound.

MEDIUM. The object that produces a sound. Can be: vocal, instrumental, or both; solo or ensemble (duet, trio, choir, orchestra, etc.); one of various instrument types (aerophone, chordophone, idiophone, membranophone).

PITCH. A tone determined by its frequency level. Related concepts include:

Tuning system. The pitches common to a particular musical tradition.

Scale. The pitches used in a particular performance arranged in order.

Interval. The difference between two pitches.

Range. All the pitches that a voice or instrument can potentially produce.

Melody. An organized succession of pitches forming a musical idea.

Melodic contour. The general direction and shape of a melody.

Ornamentation. An embellishment or decoration of the melody.

Text setting. The rhythmic relationship of words to melody. Text settings can be *syllabic* (one pitch per syllable) or *melismatic* (several pitches per syllable).

RHYTHM. The relationship of durations. Related concepts include:

Beat. A regular pulsation.

Accent. An emphasized beat.

Tempo. The relative rate of speed of the beat.

Meter. A system of grouping beats into individual units.

Free rhythm. Music with no regular pulsation.

Rhythmic density. The quantity of notes between periodic accents or over a specific unit of time.

PHONIC STRUCTURE. The organizational relationship between or among musical sounds. Related concepts include:

Monophony. A single line of music.

Polyphony. Multiple lines of music.

Homophony. Multiple lines of music expressing the same musical idea.

Independent polyphony. Two or more lines of music expressing independent musical ideas.

Heterophony. Multiple performers playing simultaneous variations of the same line of music.

DYNAMICS. The volume of a musical sound.

FORM. The underlying temporal structure of a musical performance.

Questions to Consider

1. Which of the four basic components of music is most helpful in identifying a world music tradition? Why?
2. In the Sachs-Hornbostel system, name at least three examples from each instrument category. In which subcategories do these belong?
3. How does *pitch* differ from *tuning system?* How does *tuning system* differ from *scale?* How does *scale* differ from *range?*
4. How does *homophony* differ from *independent polyphony?* How does *independent polyphony* differ from *heterophony?*
5. What are some difficulties in using English terminology to describe the world's musics?
6. When music is represented graphically in notation, what are some of the limitations? How is Western staff notation limited in its ability to describe world music?