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## UNIT I



# The Elements of Music

### 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*

Melody is that element of music which makes the widest and most direct appeal. It has been called the soul of music. It is generally what we remember and whistle and hum. We know a good melody when we hear it and we recognize its unique power to move us, although we might be hard put to explain wherein its power lies. The melody is the musical line—or curve if you prefer—that guides our ear through a composition. The melody is the plot, the theme of a musical work, the thread upon which hangs the tale. As Aaron Copland aptly put it, "The melody is generally what the piece is about."

### *The Nature of Melody*

A *melody* is a succession of single tones or pitches perceived by the mind as a unity. Just as we hear the words of a sentence not singly but in relation to the thought as a whole, so too do we perceive the tones of a melody in relation to one another. We derive from them the impression of a beginning, a middle, and an end.

We can describe three characteristics of any melody: its range, its shape, and the way it moves. A melody goes up and down, its individual tones being higher or lower than one another. By *range* we mean the distance between its lowest and highest tones. A melody may have a narrow, medium, or wide range. *Shape* is determined by the direction a melody takes as it turns upward or downward. This movement can be charted on a kind of

### *Characteristics of Melody*

line graph that may take the form of an ascending or descending line, an arch, or a wave, to list a few possibilities. *Type of movement* depends upon whether a melody moves stepwise or leaps to a tone several degrees away or farther. Melodies that move principally in stepwise motion are called *conjunct* (joined or connected), while a melody that moves with many leaps is described as *disjunct* (disjoined or disconnected). These characteristics are illustrated by the examples below.

### Characteristics of Melody

#### 1. Opening of *America* (patriotic song)



Range: narrow (five-note span)

Shape: wavelike

Type of movement: conjunct (few leaps, mostly stepwise)

#### 2. Opening of *Joy to the World* (Christmas carol)

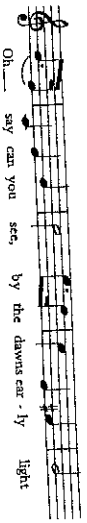


Range: medium (eight-note span)

Shape: descending line

Type of movement: conjunct (completely stepwise)

#### 3. Opening of *The Star-Spangled Banner* (national anthem)



Range: wide (ten-note span)

Shape: wavelike

Type of movement: disjunct (many leaps)

### The Structure of Melody

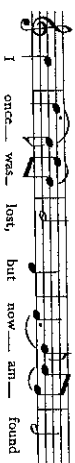
We can examine the structure of a melody in much the same way that we analyze the form of a sentence. A sentence can be divided into its component units or phrases; the same is true for a melody. A *phrase* in music, therefore, just as in language, denotes a unit of meaning within a larger structure. 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 either inconclusive, leaving the listener with the impression that more is to come, or it may sound final, giving the listener the sense that the melody has reached the end. The cadence, naturally, is where a singer stops to draw breath. Also, a string player will "breathe" at the end of a phrase. If the melody is set to words, the text phrase and the musical phrase will coincide. Many folk and popular tunes consist of four phrases which are set to a four-line poem. The first and third lines of the poem may rhyme, the second and fourth invariably do. This symmetrical type of stanza is reflected in the phrase-and-cadence structure of the melody.

An example is the well-known American tune, *Amazing Grace*. Its four phrases, both in the poem and the music, are of equal length. Notice that the first and third lines of the stanza rhyme, as do the second and fourth. The first three cadences are inconclusive (incomplete), with an upward inflection like a question at the end of the second phrase. The fourth phrase, with its downward inflection, provides the answer: that is, it gives the listener a sense of finality. One tone serves as home base, around which the melody revolves and to which it ultimately returns.

### The Structure of Melody: Phrasing

#### *Amazing Grace* (early American melody)

Four text phrases = four musical phrases



A melody has to be carefully shaped in order to maintain the listener's interest. What makes a striking effect is the climax, the high point in a melodic line that usually represents the peak of intensity. The climax gives purpose and direction to the melodic line. It creates the impression of crisis met and overcome. The American national anthem, for example, contains a splendid climax in the last phrase on the words "O'er the land of the free." There can be no doubt in anybody's mind that this song is about freedom. Clearly, freedom must be striven for, to judge from the effort we make to get up to the crucial note.

"Melody," wrote the composer Paul Hindemith, "is the element in which the personal characteristics of the composer are most clearly and most obviously revealed." For melody is the essential unit of communication in music: the direct bearer of meaning from composer to listener.

## 2

## Rhythm: Musical Time

"In the beginning was rhythm."—HANS VON BÜLOW

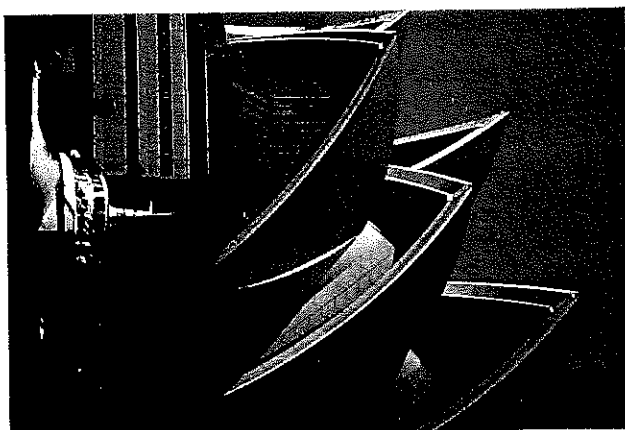
*Rhythm*—the Greek word for "flow"—is the term we use to refer to the controlled movement of music in time. Since music is an art that exists solely in time, rhythm shapes all the relationships within a composition, down to the minutest detail. Hence the composer Roger Sessions's remark that "an adequate definition of rhythm comes close to defining music itself."

### The Nature of Rhythm

It is rhythm that causes people to fall in step when the band plays, to nod or tap with the beat. Rhythm releases our motor reflexes even if we do not respond with actual physical movement. We feel it in ourselves as a kind of ideal motion; we seem to dance without leaving our chairs.

Upon the tick-tock of the clock or any series of noises we hear, we automatically impose a pattern. We hear the sounds as a regular pulsation of strong and weak beats. In other words, we organize our perception of time by means of rhythm. The ancients believed that, in its most general sense, rhythm was the controlling principle of the universe. Certainly, it can be perceived in all the arts. The symmetrical proportions of architecture, the balanced grouping of painting and sculpture, the repeated movements of the dance, the regular meters of poetry—each in its own sphere represents our deep-seated need for rhythmical arrangement. But it is in music, the art of ideal movement, that rhythm finds its richest expression.

*In architecture, symmetry and repetition of elements are expressions of rhythm. The Sydney Opera House, Bennelong Point, Sydney Harbor, 1972. (Photo courtesy Australian Tourist Commission)*



### Meter

If we are to grasp the flow of music through time, time must be organized. Musical time is usually organized in terms of a basic unit of length, known as a *beat*—the regular pulsation to which we may tap our feet. Some beats are stronger than others—these are known as *accented* or *strong* beats. In much of the music we hear, these strong beats occur at regular intervals—every other beat, every third beat, every fourth, and so on—and thus we perceive the beats in groups of two, three, four, or more. These groups are known as *measures* each containing a fixed number of beats. The first beat of the measure generally receives the strongest accent.

*Meter*, therefore, denotes the fixed time patterns within which musical events take place. Within the underlying metrical framework, the rhythm flows freely. Although meter is one of the elements of rhythm, it is possible to draw a subtle distinction between them: rhythm refers to the overall movement of music in time and the control of that movement while meter involves the actual measurement of time. A similar distinction may be drawn in the realm of poetry. For example, the following stanza by Robert Frost is in a simple meter that alternates a strong and weak beat. A metrical reading of this poem will bring out the regular pattern of accented (˘) and unaccented (–) syllables:

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

### Beat

### Measure

When we read rhythmically, on the other hand, we bring out the natural flow of the language within the basic meter, and, more important, the expressive meaning of the words.

### Metrical Patterns

Most meters are organized into simple patterns of two, three, or four beats grouped together in a measure. As in poetry, these meters depend on the regular recurrence of accent. Simplest of all is a succession of beats in which a strong beat alternates with a weak one: ONE-two, ONE-two, or, in marching, LEFT-right, LEFT-right. This pattern of two beats to a measure is known as *duplet meter* and occurs in many nursery rhymes and marching songs, as well as in other kinds of music.

*Triple meter* is another basic pattern in Western music. It consists of three beats to a measure—one strong beat and two weak—and is traditionally associated with such dances as the waltz and the minuet.

*Quadruple meter* also known as *common time*, 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 not easy to tell duplet and quadruple meter apart, quadruple meter usually has a broader feeling.

Meters in which each beat is divided into three (rather than two) are known as *compound meters*. Most frequent among them is *sextuple meter*, with six beats to the measure, with a primary accent on the first beat and a secondary accent on the fourth. Marked by a gently flowing effect, this pattern is often found in lullabies and boat songs. The following examples illustrate the four basic patterns:

*Compound meters*

### Examples of Simple and Compound Meters

- ' = primary accent
- ˘ = secondary accent
- = unaccented beat

Duple meter: *Twinkle, twinkle little star* (children's song)

Accents:  Twin-kle, twin-kle lit-tle star, -  
 Meter:   1   2   | 1   2   | 1 2 | 1   2   |  
 How I won-der what you are, -  
           1   2 | 1   2 | 1   2   | 1   2

Other examples of duplet meter:

*Yankee Doodle* (American Revolutionary War song)

*Oh, Susanna* (Nineteenth-century American song by Stephen Foster)

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  
 Of thee I sing -  
 1 2 3 | 1 2 3

Other examples of triple meter:

*The Star-Spangled Banner*

*Happy Birthday*

Quadruple meter: *America, the Beautiful* (patriotic song)

Oh, beau-ti-ful for spa-cious skies,  
 4 | 1 2 3 4 | 1 2 3  
 For am-ber waves of grain -  
 4 | 1 2 3 4 | 1 2 3  
 For pur-ple moun-tain ma-jes-ties  
 4 | 1 2 3 4 | 1 2 3  
 A-bove the fruit-ed plain -  
 4 | 1 2 3 4 | 1 2 3

Other examples of quadruple meter:

*This Land Is Your Land* (American folksong)

*Battle Hymn of the Republic* (American Civil War song)

*Aura Lee* (folksong, same tune as *Love Me Tender*)

Compound (sextuple) meter: *Rock-a-bye Baby* (children's lullaby)

Rock-a-bye ba-by | on the tree-top -  
           1   2 3   4 5 6 | 1 2 3   4 5 6  
 When the wind blows - , the cra-dle will rock -  
           1   2 3   4 5 6 | 1 2 3   4 5 6

Other examples of compound (sextuple) meter:

*Greensleeves* (English folksong)

*Silent night* (Christmas carol)

*Scarborough Fair* (American folksong)

Several additional characteristics of meter should be explained. In some cases, a piece will not begin with an accented beat. For example, *America, the Beautiful*, given above under quadruple meter, begins with an *upbeat*, or on the last beat of the measure—in this case on beat 4. (Notice that the

*Syncopation*

Frost poem cited earlier also begins with a weak beat.) Composers devised a number of ways to keep the recurrent accent from becoming monotonous. They used ever more complex rhythmic patterns within the measure, and learned how to vary the underlying beat in different ways. The most common of these procedures is *syncopation*, a term used to describe a deliberate upsetting of the rhythm through a temporary shifting of the accent to a weak beat or to an *offbeat* (in between the beats). This technique has figured in the music of the masters for centuries, and it is characteristic of the Afro-American dance rhythms out of which jazz developed. The following examples illustrate the technique.

**Syncopation**

1. Slightly syncopated tune: *Good Night, Ladies*

Good night, la-dies, —	good night, la-dies —
1 2   1	2   1 2   1

2. Highly syncopated tune: *I Got Rhythm*

I got my girl, who could ask for a-ny-thing more —	I got rhy- thm, I got mu- sic
1 2 3 4   1 2 3 4	1 2 3 4   1 2 3 4

To sum up: music is an art of movement in time. Rhythm, the artistic organization of musical movement, permeates every aspect of the musical process. It binds together the parts within the whole: the notes within the measure, the measures within the phrase. Time is the crucial dimension in music, and its first law is rhythm.

3

**HARMONY: Musical Space**

*"Music to create harmony, must investigate discord."*—PIUTARCA

We are accustomed to hearing melodies against a background of harmony. To the movement of the melody, harmony adds another dimension—depth. Think of harmony as occurring on a vertical plane: it describes the simultaneous happenings in music. Harmony is to music what perspective is to painting—it introduces the impression of musical space. The supporting role of harmony is apparent when a singer is accompanied by a guitar or piano.



*Harmony lends a sense of depth to music, as perspective does to painting.* Meinert Hobbsma (1638-1709) The Avenue, Middelharnis. (Courtesy of the Trustees, The National Gallery, London)

The singer presents the melody while the instrument provides the harmonic background.

*Harmony* pertains to the movement and relationship of intervals and chords. An *interval* may be defined as the distance—and relationship—between two tones. In the musical scale, the tones are identified either by syllables—*do-re-mi-fa-sol-la-ti-do*—or by numbers—1-2-3-4-5-6-7-8 (1). Thus, the interval *do-re* (1-2) is a second, *do-mi* (1-3) is a third, *do-fa* (1-4) a fourth, *do-sol* (1-5) a fifth, *do-la* (1-6) a sixth, *do-ti* (1-7) a seventh, and from one *do* to the next is an *octave*. The tones of the interval may be sounded in succession or simultaneously.

A *chord* may be defined as a combination of two or more typically three tones that constitutes a single block of harmony. As you see from the example on page 16, melody constitutes the horizontal aspect of music, while harmony, consisting of blocks of tones (the chords), constitutes the vertical.

*The Function of Harmony*

Chords have meaning only in relation to other chords: that is, only as each chord leads into the next. Harmony therefore implies movement and progression.

The most common chord in our music is a certain combination of three tones known as a *triad*. Such a chord may be built by combining the first, third, and fifth degrees of the scale: *do-mi-sol*. A triad may be built on the second degree (steps 2-4-6 or *re-fa-la*); on the third degree (steps 3-5-7 or *mi-sol-ti*); and similarly on each of the other degrees of the scale. The triad is a basic formation in our music. In the next example, the melody of *Old MacDonald* is harmonized by triads.

*Triad*

*Chord*

*Octave*

**Example of Harmony**

Melody

Horizontal plane

Harmony

Vertical plane

*Old MacDonald* (children's song)

Harmony (chords)  
 Triad (built from scale tones 1-3-5)  
 Scale

It is apparent that melody and harmony do not function independently of one another. On the contrary, the melody implies the harmony that goes with it, and each constantly influences the other.

### Tonality

A system of music must have set procedures for organizing tones into intelligible relationships. One of the first steps in this direction is to select certain tones and arrange them in a family or group, which we have referred to as the scale. In such a group, one tone assumes greater importance than the rest. This is the first tone of the scale, *do*, also called the *tonic* or *keynote*, which serves as a home base around which the others revolve and to which they ultimately gravitate. We observed this principle at work earlier with the tune *Amazing Grace* (Chapter 1, page 9). It is in this sense of a home base that helps us recognize when a piece of music ends.

The principle of organization around a central tone, the tonic, is called *tonality*. The particular scale chosen as the basis of a piece determines the identity of the tonic and the tonality. Two different types of scale are commonly found in Western music written between about 1650 and 1900: *major* and *minor*. What characterizes these two types are the intervals upon which they are built. More about the formulation of scales later (see Chapter 16, pages 117-20). For the moment, it is sufficient to offer the following ob-

servation concerning the differences usually attributed to major and minor scales: music in major may be thought of as bright while minor sounds more subdued. Some people find that minor sounds sadder than major. Indeed, in the nineteenth century, the minor was regarded as more somber than the major. For this reason, a composer would hardly choose a minor tonality for a triumphal march or grand finale of a piece. For now, we shall regard major and minor as scale types and tonalities, each with its own unique quality of sound.

We will observe later that we make a distinction between notes that belong to a particular scale and tonality and those that do not. The term *diatonic* describes melodies or harmonies that are built from the tones of a major or minor scale; *chromatic* (from the Greek word *chroma* meaning color) describes the full gamut of notes available in the octave.

### Consonance and Dissonance

Harmonic movement, as we shall see, is generated by motion toward a goal or resolution. This striving for resolution is the dynamic force in our music. It shapes the forward movement, imparting focus and direction. Movement in music receives its maximum impetus from *dissonance*, a combination of tones that sounds discordant, unstable, in need of resolution.

Dissonance introduces the necessary tension into music. Without it, a work would be intolerably dull and insipid. What suspense and conflict are to the drama, dissonance is to music. The resolution of dissonance results in *consonance*, a concordant or agreeable combination of tones that provides a sense of relaxation and fulfillment in music. At their extremes, dissonance can be harsh sounding while consonance is more pleasing to the ear. Each complements the other: both are a necessary part of the artistic whole.

In general, music has grown more dissonant through the ages. It is easy to understand why. A combination of tones that sounded extremely harsh when first introduced began to seem less so as the sound became increasingly familiar. As a result, a later generation of composers had to find ever more dissonant tone combinations in order to create the same tension as their predecessors.

Harmony is a much more sophisticated phenomenon than melody. Historically, it appeared much later, about a thousand years ago, and its real development took place only in the West. The music of the Orient to this day is largely melodic. Indeed, we may consider the great achievement of Western music to be harmony (hearing in depth), even as in painting it is perspective (seeing in depth). Our harmonic system has advanced steadily over the past ten centuries. Today it is adjusting to new needs. These constitute the latest chapter in man's age-old attempt to impose order upon the raw material of sound—to organize tones in such a way that they will manifest a unifying idea, a selective imagination, a reasoning will.

## Musical Texture

"Ours is an age of texture".—GEORGE DYSON

4

In writings on music we encounter frequent references to its fabric or *texture*. Such comparisons between music and cloth are not as unreasonable as may at first appear, since the melodic lines may be thought of as so many threads that make up the musical fabric. This fabric may be one of several types: monophonic, polyphonic, or homophonic.

### Types of Texture

The simplest texture is *monophonic* or single-voice texture. ("Voice" refers to an individual part or line, even when we speak of instrumental music—to an allusion to the fact that all music stems from vocal origins.) Here the melody is heard without either a harmonic accompaniment or other vocal lines. Attention is focused on the single line. All music up to about a thousand years ago of which we have any knowledge was monophonic.

To this day the music of the Oriental world—of China, Japan, India, Java, Bali, and the Arab nations, for example—is largely monophonic. The melody may be accompanied by a variety of rhythm and percussion instruments that embellish it, but there is no third dimension of depth or perspective that harmony alone confers upon a melody.

When two or more melodic lines are combined, we have a *polyphonic* or many-voiced texture. Here the music derives its expressive power and its interest from the interplay of several lines. Polyphonic texture is based on counterpoint. This term comes from the Latin *punctus contra punctus*, "point against point" or "note against note"—that is to say, one musical line against the other. *Counterpoint* is the art of combining in a single texture two or more simultaneous melodic lines, each with a rhythmic life of its own.

It was a little over a thousand years ago that European musicians hit upon the device of combining two or more lines simultaneously. At this point Western art music parted company from that of the monophonic Orient. There ensued a magnificent flowering of polyphonic art that came to its high point in the fifteenth and sixteenth centuries. This development of counterpoint took place at a time when composers were mainly preoccupied with sacred choral music, which, for the most part, is many-voiced.

In the third type of texture a single voice takes over the melodic interest while the accompanying voices surrender their individuality and become blocks of harmony, the chords that support, color, and enhance the principal part. Here we have a single-melody-with-chords or *homophonic* texture. Again the listener's interest is directed to a single line, but this line, unlike the melody of Oriental music, is conceived in relation to a harmonic back-

### MUSICAL TEXTURE

ground. Homophonic texture is heard when a pianist plays a melody in the right hand while the left sounds the chords, or when the singer or violinist carries the tune against a harmonic accompaniment on the piano. Homophonic texture, then, is based on harmony, just as polyphonic texture is based on counterpoint.

We have said that melody is the horizontal aspect of music while harmony is the vertical. The comparison with the warp and woof of a fabric consequently has real validity. The horizontal threads, the melodies, are held together by the vertical threads, the harmonies. Out of their interaction comes a weave that may be light or heavy, coarse or fine.

A composition need not use one texture or another exclusively. For example, a symphonic movement may present a theme against a homophonic texture. Later in the movement, however, the texture is apt to become increasingly contrapuntal. So, too, in a homophonic piece the composer may enhance the effect of the principal melody through an interesting play of counterthemes and counterhythms in the accompanying parts.

### Contrapuntal Devices

When several independent lines are combined, composers try to give unity and shape to the texture. A basic procedure for achieving this end is *imitation*, in which a theme or motive is presented in one voice and then restated in another. While the imitating voice restates the theme, the first voice continues with counterpoint. Thus a polyphonic texture is achieved. We have spoken of the vertical and horizontal threads in musical texture. To these imitation adds a third, the diagonal (see the music example on page 20).

The length of the imitation may be brief or may last the entire work. In the latter case, we have a strict type of composition known as a canon. (The name comes from the Greek word for "law" or "order.") The simplest and most popular form of canon is a *round*, in which each voice enters in succession with the same melody. A round is a perpetual canon for singing voices; commonly known examples include the children's songs *Row, Row, Row Your Boat* and *Frère Jacques* (Brother John).

Contrapuntal writing is marked by a number of devices that have flourished for centuries. *Inversion* is a technique that turns the melody upside down; that is, it follows the same intervals but in the opposite direction. Where the melody originally moved up by a third, the inverted version moves down by a third. *Retrograde* refers to a statement of the melody backwards, beginning with its last note and proceeding to its first. These two techniques can be combined in the *retrograde inversion* of a melody: upside down and backwards. *Augmentation* calls for the melody to be presented in longer time values, often twice as slow as the original. Think of it as augmenting or increasing the time it takes to play the melody. The opposite technique is called *diminution* in which the melody is presented in short time values, thus diminishing the time it takes to be played. These devices are illustrated below with a theme from the Sonata for Violin and Piano by César Franck.

### Monophonic

### Polyphonic

### Counterpoint

### Homophonic

### Imitation

### Canon and round

### Inversion

### Retrograde

### Retrograde inverts

### Augmentation

### Diminution

**Contrapuntal Devices**

**1. Imitation, between piano and violin**

**2. Other contrapuntal devices (8 lines of music throughout)**

*Musical Texture and the Listener*

Different types of texture require different types of listening. Monophonic music—the simplest type, since it has only a single melodic line—hardly figures in the music of the West at present. Homophonic music poses no special problems to music lovers of today. They are able to differentiate between the principal melody and its attendant harmonies, and to follow the interrelation of the two. They are helped in this by the fact that most of the music they have heard since their childhood consists of melody and chords.

The case is different with polyphonic music, which is not apt to appeal to those who listen with half an ear. Here we must be aware of the independent lines as they flow alongside one another, each in its own rhythm. This requires much greater concentration on our part. Only by dint of repeated hearings do we learn to follow the individual voices and to separate each within the contrapuntal web.

**Examples of Musical Texture**

**Monophonic—one melodic line, no accompaniment**

**Polyphonic—several independent melodic lines combine (separate entries marked with brackets)**

**Homophonic—one melody, with accompaniment (melody in top part, chords in accompaniment)**

**Summary of textural treatment in various historical periods:**

- Before the tenth century A.D. monophonic
- From around 1000 to 1600 polyphonic (contrapuntal)
- 1600–1750 polyphonic-homophonic
- 1750–1900 homophonic; contrapuntal procedures absorbed into orchestral and chamber music
- Since 1900 revival of interest in polyphonic texture



# Musical Form

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

**Form** is that quality in a work of art which presents to the mind of the beholder an impression of conscious choice and judicious arrangement. Form represents clarity and order in art. It shows itself in the selection of certain details and rejection of others. Form is manifest too in the relationship of the parts to the whole. It helps us to grasp the work of art as a unity. It can be as potent a source of beauty as the content itself.

Whether in the domestic arts—the setting of a table, the weaving of a basket—or in the loftier ones, a balance is required between unity and variety, between symmetry and asymmetry, activity and repose. Nor is this balance confined to art. Nature has embodied it in the forms of plant and animal life and in what mankind likes to think of as her supreme handiwork—the human form.

## Structure and Design in Music

Our lives are composed of sameness and differentness: certain details are repeated again and again, others are new. Music mirrors this dualism. Its basic law of structure is *repetition and contrast*—unity and variety. Repetition fixes the material in our minds and ministers to our need for the familiar. Contrast sustains our interest and feeds our love of change. From the interaction of the familiar and the new, the repeated elements and the contrasting ones, result the lineaments of musical form. These are to be found in every type of musical organism, from the nursery rhyme to the symphony.

One further principle of form that falls between repetition and contrast is *variation*, where some aspects of the music are altered but recognizable. We hear this formal technique when we listen to a new arrangement of a well-known popular song. The tune is recognizable, but many features of the known version may be changed.

The principle of form is embodied in a variety of musical structures. These utilize procedures worked out by generations of composers. No matter how diverse, they are based in one way or another on repetition and contrast. The forms, however, are not fixed molds into which composers pour their material. What gives a piece of music its aliveness is the fact that it adapts a general plan to its own requirements. All faces have two eyes, a nose, and a mouth. In each face, though, these features are found in a wholly individual combination. The forms that students in composition follow are ready-made formulas set up for their guidance. The forms of the masters are living

Variation

id contrast

## Musical Form

organisms in which external organization is delicately adjusted to inner content. No two symphonies of Haydn or Mozart, no two sonatas of Beethoven are exactly alike. Each is a fresh and unique solution to the problem of fashioning musical material into a logical and coherent form.

### Two-Part and Three-Part Form

The principles of form may be illustrated through two of the most basic and common patterns in music. Two-part or *binary form* is based on a statement and a departure, without a return to the opening section. Three-part or *ternary form*, on the other hand, extends the idea of statement and departure by bringing back the first section. Formal patterns can be simply outlined: binary form as A-B and ternary form as A-B-A, as illustrated in the following chart.

Binary form  
Ternary Form

### Binary and Ternary Form

Binary form: *Yankee Doodle*

Statement—A



Yan-kee Doo-dle went to town, a - ri - ding on a po - ny,



Stuck a feath-er in his cap and called it ma - ca - ro - ni.

Departure—B



Yan - kee Doo-dle keep it up, Yan - kee Doo-dle dan - dy,



Mind the mu-sic and the step and with the girls be han - dy.

Ternary form: *Twinkle, Twinkle Little Star*

Statement—A



Twinkle, twinkle Hi - le star, How I won-der what you are.

Contrast (Departure)—B

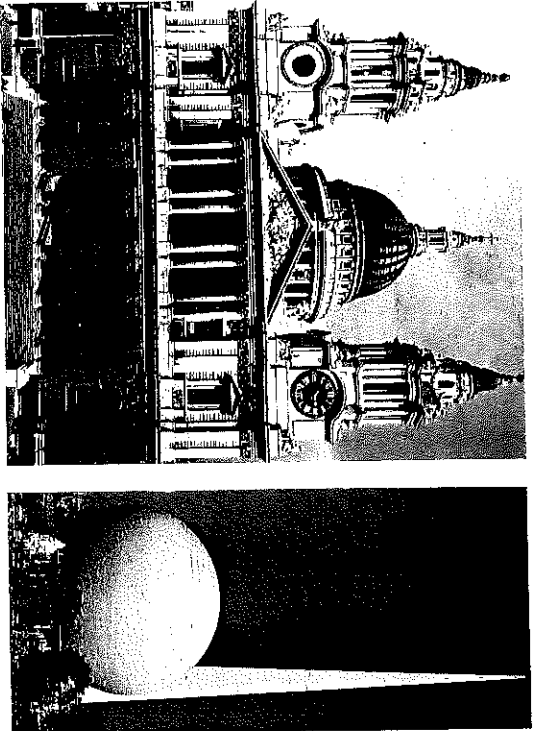


Up a -bove the world so high, Like a dia-mond in the sky!

Repetition—A



Twinkle, twinkle Hi - le star, How I won-der what you are.



Left: The facade of St. Paul's Cathedral in London (1675-1710), designed by Sir Christopher Wren, illustrates that three-part (A-B-A) form is as appealing to the eye as it is to the ear. Right: The Tylon and Persphere, symbol of New York's World's Fair of 1939, is a visual realization of binary (A-B) form. (The Bettmann Archive)

Both two-part and three-part forms are common in short pieces such as songs and dances. With its attractive symmetry and its balancing of the outer sections against the contrasting middle one, three-part form constitutes a simple, clear-cut formation that is a favorite in architecture and painting as well as music.

### The Building Blocks of Form

When a melodic idea is used as a building block in the construction of a musical work, it is known as a *theme*. The theme is the first in a series of musical situations, all of which must grow out of the basic idea as naturally as does the plant from the seed. The process of spinning out a theme, of weaving and reweaving threads of which it is composed, is the essence of musical thinking. This process of expansion has its parallel in prose writing, where an idea stated at the beginning of a paragraph is embroidered and enlarged upon until all its aspects appear in view. Each sentence leads smoothly into the one that follows. In similar fashion, every measure in a musical work takes up where the one before left off and brings us inexorably to the next.

The most tightly knit kind of expansion in Western music is known as *thematic development*. To develop a theme means to unfold its latent energies, to search out its capacities for growth and bring them to fruition. Thematic development is one of the most important techniques in musical composition, demanding of the composer imagination, master craftsmanship, and intellectual power.

### MUSICAL FORM

In the process of development, certain procedures have proved to be particularly effective. The simplest is repetition, which may be either exact or varied; or the idea may be restated at another pitch. Such a restatement at a higher or lower pitch level is known as a *sequence*. The original idea may also be varied in regard to melody, harmony, rhythm, or other elements that we have not yet discussed, such as loudness or softness, tempo, or particular instrumental sound. It may be attended by expansion or contraction of the note lengths as well as by bold and frequent changes of tonality.

A basic technique in thematic development is the breaking up of the theme into its constituent motives. A *motif* is the smallest fragment of a theme that forms a melodic-rhythmic unit. Motives are the cells of musical growth. Through fragmentation of themes, through repeating and varying motives and combining them in ever fresh patterns, the composer imparts to the musical organism the quality of dynamic evolution and growth.

These musical building blocks can be seen in action even in simple songs, such as the popular national tune *America*. In this piece, the opening three-note motive ("My country") is repeated in sequence almost immediately at a different pitch level on the words "Sweet land of." A fine example of a sequence occurs later in the piece: the musical motive set to the words "Land where our fathers died" is repeated beginning on a slightly lower note for the words "Land of the pilgrim's pride."

### Motives and Sequences

#### America

In subsequent chapters we shall examine the great forms of Western music. No matter how imposing their dimensions, they all show the principle of repetition and contrast, of unity and variety, that we have traced here. In all its manifestations our music displays the striving for organic form that binds together the individual tones within a phrase, the phrases within a section, the sections within a *movement* (a complete, comparatively independent division of a large-scale work), and the movements within a work

### Movement

as a whole; even as, in a novel, the individual words are bound together in phrases, sentences, paragraphs, sections, chapters, and parts.

It has been said that architecture is frozen music. By the same token, music is floating architecture. Form is the structural principle in music. It distributes the areas of activity and repose, tension and relaxation, light and shade, and integrates the multitudinous details, large and small, into the spacious structures that are the glory of Western music

6

# Tempo and Dynamics

*"The whole duty of a conductor is comprised in his ability to indicate the right tempo."*—RICHARD WAGNER

## The Pace of Music

Meter tells us how many beats there are in the measure, but it does not tell us whether these beats occur slowly or rapidly. The *tempo*, by which we mean the rate of speed, the pace of the music, provides the answer to this vital question. Consequently, the flow of music in time involves both meter and tempo.

Tempo carries emotional implications. We hurry our speech in moments of agitation. Our bodies press forward in eagerness, hold back in lassitude. Vigor and gaiety are associated with a brisk gait as surely as despair demands a slow one. In an art of movement such as music, the rate of movement is of prime importance. We respond to musical tempo physically and psychologically. Our pulse, our breathing, our entire being adjusts to the rate of movement and to the feeling engendered thereby on the conscious and subconscious levels.

Because of the close connection between tempo and mood, tempo markings indicate the character of the music as well as the pace. The tempo terms are generally given in Italian, as in the following list.

- |                          |                 |
|--------------------------|-----------------|
| solemn (Very, very slow) | <i>grave</i>    |
| broad (Very slow)        | <i>largo</i>    |
| quite slow               | <i>adagio</i>   |
| a walking pace           | <i>andante</i>  |
| moderate                 | <i>moderato</i> |
| fast (Cheerful)          | <i>allegro</i>  |
| lively                   | <i>vivace</i>   |
| very fast                | <i>presto</i>   |

## TEMPO AND DYNAMICS

Frequently encountered too are modifying adverbs such as *molto* (very), *meno* (less), *poco* (a little), and *non troppo* (not too much).

Of great importance are the terms indicating a change of tempo. The principal ones are *accelerando* (getting faster) and *ritardando* (holding back, getting slower); *a tempo* (in time) indicates a return to the original pace.



## Loudness and Softness

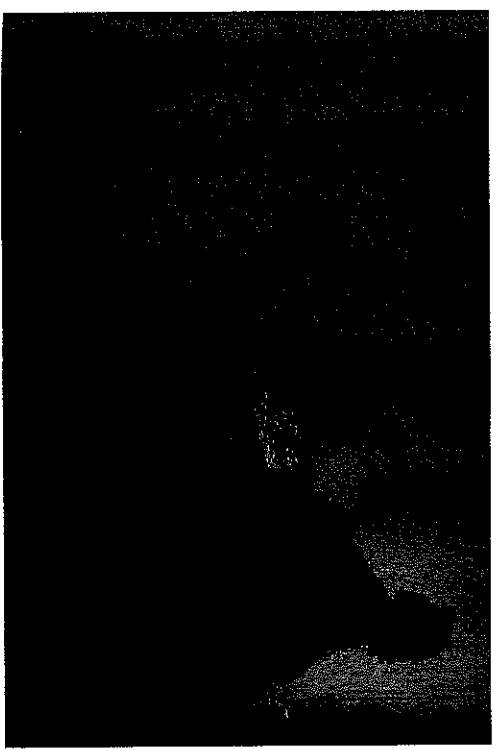
*Dynamics* denotes the degree of loudness or softness at which the music is played. In this area, as in that of tempo, certain responses seem to be rooted in the nature of our emotions. Mystery and fear call for a whisper, even as jubilation and vigorous activity go with full resonance.

The principal dynamic indications are:

- |                 |                         |
|-----------------|-------------------------|
| very soft       | <i>pianissimo (pp)</i>  |
| soft            | <i>piano (p)</i>        |
| moderately soft | <i>mezzo piano (mp)</i> |
| moderately loud | <i>mezzo forte (mf)</i> |
| loud            | <i>forte (f)</i>        |
| very loud       | <i>fortissimo (ff)</i>  |

Of special importance are the directions to change the dynamics. Such changes are indicated by words or signs. Among the commonest are:

- |                |  |
|----------------|--|
| growing louder | <i>crescendo</i> (  )                 |
| growing softer | <i>decrescendo or diminuendo</i> (  ) |
| sudden stress  | <i>sforzando (sf)</i> , "forcing"—accent on a single note or chord   |



*Dynamic contrasts in music are analogous to light and shade in painting. Rembrandt van Rijn (1606-69) disciples of Emmanus. (Musée Jacquemart-André, Paris)*

As the orchestra increased in size and precision, composers extended the range of dynamic markings in both directions, so that we find *ppp* and *fff*. Ultimately four and even five *p*'s or *f*'s were used.

*Tempo and Dynamics as Elements of Musical Expression*

The markings for tempo and dynamics contribute to the expressive content of a piece of music. These so-called expression marks steadily increased in number during the late eighteenth and nineteenth centuries, as composers tried to indicate their intentions ever more precisely. In this regard it is instructive to compare a page of a Handel score (late eighteenth century) with one of Mahler on facing page (late nineteenth century).

Crescendo and diminuendo are among the important expressive effects available to the composer. Through the gradual swelling and diminishing of the tone volume, the illusion of distance enters music. As orchestral style developed, composers quickly learned to take advantage of this effect.

- e* score of
- works
- ge
- el. (Nore
- expression
- Basson I.
- 8 per parte.
- Basson II.
- 4 per parte.
- Oboe III.
- 4 per parte.
- Oboe II.
- 8 per parte.
- Oboe I.
- 12 per parte.
- Corno III.
- 3 per parte.
- Corno II.
- 3 per parte.
- Corno I.
- 3 per parte.
- Tymano.
- 3 per parte.
- Principal.
- 3 per parte.
- Tromba II.
- 3 per parte.
- Tromba I.
- 3 per parte.

This musical score shows the beginning of a section in Mahler's Symphony No. 2. It features multiple staves for different instruments, including woodwinds and brass. The notation includes various dynamic markings and articulation symbols. A small note at the bottom left indicates '(g) Contra Bassoon'.

This musical score shows a more complex section of Mahler's Symphony No. 2. It features a dense arrangement of staves for various instruments, including woodwinds, brass, and strings. The notation is highly detailed, with many dynamic markings and complex rhythmic patterns. The score is labeled with various instrument abbreviations such as '1. Tr.', '2. Tr.', 'Corno', 'Oboe', and 'Basson'.

A page from the score of Gustav Mahler's *Symphony No. 2*. (Observe the profusion of expression marks.)