

Print Preview Musical Rhythm

[Article View](#)

On the File menu, click Print to print the information.

Musical Rhythm

I. INTRODUCTION

Musical Rhythm, all aspects of music concerned with its motion through time and, thus, with its time structure. In addition to this overall meaning, the term *rhythm* is occasionally used to refer to specific time events, such as the patterns of lengths in a certain group of notes. In this article, individual technical terms are used for these more restricted meanings.

II. PULSE AND METER

Like the rhythms in nature, such as the motion of the planets, the succession of seasons, and the beating of the heart, musical rhythm usually is organized in regularly recurring patterns. Such patterns regulate the motion of the music and aid the human ear in grasping its structure. The most basic rhythmic unit is the beat or pulse—a recurring time pattern that resembles the ticking of a clock. In most popular and dance music, the pulse is explicitly stated, often by drumbeats or by a regular accompaniment pattern. In more complex music, the beat is often only implicit—a kind of common denominator for the actual lengths of the notes, which may be longer or shorter than the pulse itself. (When the listener taps a foot to such music, however, the pulse again becomes explicit.) For the pulse to be heard as a common denominator, the lengths of the individual notes must be its exact multiples or subdivisions (such as two short notes, each half as long as the pulse, or a note twice the length of the pulse). The tempo of the music determines the speed of the beat. In a fast tempo, the beat has a relatively short time value; in a slow tempo, the value of the beat is longer.

Just as the beats regulate the durations of such short musical events as a note or a pair of notes, the beats themselves are regulated by larger recurring units called measures. Measures are formed by stressing the first in a series of two or more beats, so that the beats group themselves into a pattern, for example; *ONE* two, *ONE* two, or *ONE* two three, *ONE* two three. (The first beat is called the downbeat of the measure; the last beat is called the upbeat.) The term *meter* can refer, first, to this general process of regular accentuation, and second, to the particular metrical grouping used in a given piece. In musical notation, meter is indicated by the time signature. In the time signature $\frac{4}{4}$, for example, the lower number, 4, indicates that the basic pulse is written as a quarter-note; the upper number, 2, indicates that each measure has two quarter notes. Similarly, in $\frac{6}{8}$ meter (or $\frac{6}{8}$ time) each measure has six eighth-notes. In meters such as $\frac{3}{4}$, which are considered more complex and are known as compound meters, each measure has, in addition to the principal accent on the first beat, one or more subsidiary accents. Thus a $\frac{3}{4}$ measure has a primary accent on the first beat and a secondary accent on the fourth beat: *ONE* two three, *Four* five six.

Metrically organized music is highly structured and tends to be regular. Once the meter is established, however, it need not be rigidly adhered to at all times; the listener's mind will retain the pattern even if the music temporarily contradicts it. Thus, a normally weak beat can be stressed, producing a syncopation (an accent that works against the prevailing meter). Conversely, a strong beat may occasionally be suppressed completely. Indeed, in complex metrical music a degree of tension always exists between, on the one hand, the meter as an abstract system of regulation and, on the other hand, the rhythmic flow of the actual note lengths—a flow that at times supports the meter and at times does not. Furthermore, the pulse need not necessarily be maintained with absolute rigidity; it may be played *rubato*, that is, with variations so slight that they do not destroy the basic value.

III. LARGER TIME UNITS

Just as beats are grouped into measures, measures are themselves grouped into larger units. Such groupings produce the more extended segments of time that determine the form of the music. A motive (the shortest melodic idea that forms a relatively complete musical unit) may consist of more than one

measure. One or more motives may be repeated and varied to form a phrase (a yet larger unit with a still more definite sense of ending, corresponding roughly to a sentence in language). Phrases are combined to produce sections, and sections are combined to produce entire compositions. Musical form is shaped by the relationships among these various time units and also by the relationship of these units to the whole; form in music is thus basically rhythmic in nature.

IV. WESTERN USE OF RHYTHM

From the Middle Ages to the present, Western music has consisted primarily of multipart music, in which two or more melodies are performed simultaneously, or else a melody is combined with accompaniment. This means that more than one note sounds at once. Moreover, the relationship of the simultaneous notes must conform to the requirements of Western music's highly developed system of harmony. These facts made necessary the development of a system of rhythm that could precisely regulate the various parts, allowing them to move independently, yet in strictly controlled coordination. The previously described metrical system, with its common underlying time-length framework, provided an ideal means for such coordination. Western music also required a notational system in which large numbers of mutually related time values could be indicated exactly (*see* Musical Notation). The Western system of rhythm has thus been to some extent a matter of rational control and measurement. It has also made possible the creation of extended multipart compositions of great technical and dramatic complexity.

V. 20TH-CENTURY TRENDS

In the 20th century various composers tried to break away from what they considered the overly regular quality of metered music. One way was to alter the lengths of measures, creating a kind of variable meter. Thus, a series of four measures might have time signatures of ♩, °, , and ». The only common denominator is the eighth-note of the pulse itself, which is added to produce a series of irregular larger groupings: 3 + 4 + 2 + 5. Another technique is polymeter, the simultaneous use of different meters in different parts. A more extreme approach, found in some music after about 1950, avoids meter entirely. Performers are allowed to fit a certain number of notes within a given time span (such as 10 seconds) at will, without following rules for exact coordination or measurement of the durations.

VI. NON-WESTERN SYSTEMS

In a sense, recent Western music seems to be coming closer to non-Western music, much of which is to some degree nonmetric, and in which improvisation is often important. Some musical cultures limit music to a single line of melody, with a small number of note lengths (in some cases, only two, one twice as long as the other). The note lengths, however, can be combined in various ways to create flexible, irregular larger patterns that are somewhat reminiscent of those found in Gregorian chant in early Western music.

In India and Japan, in different ways, rhythm is highly systematized yet still preserves a degree of flexibility that transcends that of most Western music. In Indian music, for example, the durations are organized within a recurring time cycle known as a *tala*. Although *tala* has something in common with the Western measure, its patterns are usually considerably longer. Moreover, its subdivisions consist of units of unequal length that combine to form a freely flowing musical continuum within the *tala*.

Other cultures have developed highly complex multipart music. African music, for instance, is largely improvised, the various parts being held together by a constant basic unit beaten out on a drum or by handclaps. The other parts are structured with great freedom relative to this unit, producing their own metrical patterns that only occasionally coincide with one another and with the basic pulse (*see* African Music). Although this system makes it impossible to produce the elaborate harmonic effects characteristic of metrical multipart music, it results in a rhythmic structure that is considerably more complex and varied.

Contributed By:
Robert P. Morgan, Ph.D.

Professor of Music, Yale University. Author of *Twentieth Century Music*.

"Musical Rhythm," Microsoft® Encarta® Online Encyclopedia 2004
<http://encarta.msn.com> © 1997-2004 Microsoft Corporation. All Rights Reserved.

© 1993-2004 Microsoft Corporation. All Rights Reserved.