A STUDY ON THE
INTEGRATION OF MUSIC AND DANCE

A Thesis Presented for the
Degree of Master of Arts

BY

Eleanor Anawalt, B.A.

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Approved by:

Eugene F. Weigel
Acknowledgment

In the attempt to assemble material which allies the fundamentals of Music with the fundamentals of Dance in order that the pursuit of artistic endeavor in each medium might be facilitated for the professional student, I am fully cognizant and appreciative of the inestimable assistance and inspiration of my colleagues in the School of Music and the Department of Physical Education at The Ohio State University.

To Eugene Weigel, Director of the School of Music, whose guidance and interest have made the work possible;

To Gladys E. Palmer, Chairman of the Women's Division of the Department of Physical Education, whose valuable suggestions and constant encouragement have been of incalculable assistance;

To Geneva Watson, of the Department of Physical Education, Women's Division for whose classes in Dance I furnished pianistic accompaniment over a period of eight years, through association with whom my eyes were opened to the possibilities and need for integration of Music and Dance;

To all of the students both in my classes in Music and in the classes of Dance with which I was associated, who provided the testing ground for the theories set forth in this thesis;

To all of these I extend sincere acknowledgment and profound thanks.
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INTRODUCTION

Purpose of the Study

The purpose of this study is to prepare course material requested by the Women's Division, Department of Physical Education, The Ohio State University. There has long been a need for prepared material which allies the fundamentals of Music with the fundamentals of Dance so that students of Dance may better understand their work. The writer, being both a teacher of Music and a composer and accompanist for Modern Dance was selected to integrate this material.

By "Integration of Music and Dance" the writer means not a presentation only of the theoretical nature of obvious similarities between these two arts, but by juxtaposing reciprocally beneficial factors, the writer intends a plea that every professional student in Music be given a course of instruction in Dance as it pertains to Music, and that every student majoring in Dance be given a course in Music that will be of value to him in his field.

In every occupation, trade or pursuit there are involved both an art and a science. A cobbler who fashions a shoe must first have a mental conception of the shoe he is to make—a design, then exercise his activities to bring this conception into being—this is art. From science, he learns how to manipulate his tools and the laws that govern construction. When his mental powers of skill and judgment and his bodily powers of muscular activity are exercised in conformity with laws of science, his production is a "work of art".

In Music and Dance both the science and the art have conspicuous analogies. In paralleling Melody with Space and Harmony with Movement,
the writer has attempted to show how even the tools of technic are congruent. In the Chapters on Rhythm, Phrasing, and Form, while science still dictates laws, which in many instances are identical in Music and Dance, it is art that is completely en rapport in "the application of skill and taste to production according to aesthetic principles resulting in the expression of beauty in form, color, sound or movement"— which is the dictionary definition of Art.

Because of the interplay of cogent features; because the study of one complements and enhances the other; because the pursuit of one clarifies the significance of the other; because the performance of either increases powers of imagination augmenting the capacity for creative thinking, it would seem logical that students would derive rich benefit from a theoretical and practical Integration of Music and Dance.

The component parts of music that must be coordinated by perfect timing into a complete whole, Melody, Harmony and Rhythm may be paralleled in the Dance by Space, Movement and Rhythm.

It is futile to conjecture as to the relative importance of these factors, suffice it to say that no one of them is complete without the others. Since Rhythm is the most manifest integrating power between Music and Dance more attention shall be devoted to it here than to the others.

---

1 Webster's New International Dictionary, p. 129;8.
Definitions and Melody Construction

Melody, in its simplest definition, is a series of single tones so arranged according to scale or chord pattern as to be pleasing to the ear. "Scale", from the Italian word "Scala" meaning Ladder, gives us a stepwise progression such as

```
\[ \text{\textit{Melody}} \]
```

"Chord", often confused in derivation with "Chorda" meaning "String", is really from "Accord" and means "in harmony with". A chord is a combination of tones which blend harmoniously when sounded together because the pitch frequencies are in the ratios of small whole numbers. A melody written over a chordal pattern might be such as this

```
\[ \text{\textit{Chord}} \]
```

Most melodies, of course, are a combination of the two.

```
\[ \text{\textit{Composition}} \]
```

etc.
The direction the pitches take can strongly influence the mood of a melody. The illustration of the "Cuckoo call" is all too familiar, but very graphic. A descending minor third is characterized by a wistful, plaintive quality. The famous opening motif of Beethoven's Fifth Symphony, a descending Major third impresses us with the doleful inevitability of Fate. On the contrary the upward slide of a seventh of the quail, or the sixth of a red bird connotes the epitome of cheer. How dramatic and martial are the rising tones of the Marseillaise.

The mood of a melody is naturally enhanced by Harmony and Rhythm. There is a story of Walter Damrosch greeting French Delegates at an important meeting in Washington. At a banquet given in their honor Mr. Damrosch had some of the trumpeters from his orchestra blare a fanfare on these isolated tones.
It is said not even the Frenchmen recognized the hint of the Marseillaise until the entire orchestra burst forth with the same pitches but with harmonization and rhythm.

**Comparison of Melody and Space**

What Melody is to Music, Space is to the Dance. While technically Melody is limited to two directions, horizontal and perpendicular, if the human body is sufficiently imbued with the possibility of its movement in space, through empathy and aural sense music can carry to the listener a projection of flexion, extension, and rotation. These functions will be discussed in more detail under "Movement" but here may it be noted that, as with music, their sphere is direction. They move, as does melody both horizontally and perpendicularly and, in addition, circularly.

**Influence on Mood**

The use of Space is also influential in creating mood. If the direction is down, the response is either one of emphasis or dejection according to the dynamic quality. If the direction is up the reaction is lyric or buoyant. When circular, the mood created is one of charm and grace or one of vortical excitement contingent upon tempo. Just as with any other basic law the exceptions to these fundamental facts are legion, the shadings brought about by myriads of influences being numberless. A comparison of Mary Wigman and Anna Pavlowa would yield an example of mood created in large part by space relationships. Wigman, with her wide, flat stance, her lugubrious lowered head, her sweeping, downward arm movements pulls your spirits straight down below the earth. Pavlowa, on the tip of
her toe, head perfectly poised, arms uplifted, made the center of gravity seem in the heavens. One's spirits soared with the exquisite lyricism of her dance.

As has been said Melody and Space are vitally important but incomplete without the other component parts from which, in reality, they are inseparable.
CHAPTER II
HARMONY AND MOVEMENT

Definition

In the ultra modern school of composition there is a trend away from melody with special stress laid upon Harmony and Rhythm. Harmony, in contradistinction to Melody which is "a succession of single tones", is "a succession or progression of chords". It is left to the discretion of the listener whether one is satisfying without the other. To appreciate the functions of Harmony in Music it is necessary to know something of its technicalities.

All Music is based on tones grouped in certain relationships known as "keys". There are Major and Minor Keys and Modes. Various scales (meaning an orderly stepwise progression of these related tones), have come into existence through the years and new ones are making their appearance constantly but sufficient for our purpose here will be an examination of the Major and Minor Modes.

The Major Scale Pattern

On the piano keyboard the symmetrical arrangement of white and black keys leads to duplication every twelve keys.
Each duplication is called an octave (from Latin octavo meaning eight) because there are eight diatonic steps, or eight letter names included. The diagram shown represents C*D=E*F*G*A*B*C with black keys for sharps or flats as the case may be. A sharp or flat does not change the letter name of a key. Since a sharp (#) is used to raise a tone a half step and a flat (b) is used to lower a tone a half step the diagram may be labelled in this manner:

```
C D E F G A B C
C# D# E# F# G# A# B#
```

A half step is the interval existing between two adjacent keys on the piano—as from C to C# or from E to F. It follows that a whole step is the sum of two half steps or from C to D or from E to F#. One key intervenes between the two keys comprising the whole step.

The Major Scale derives from a set pattern or arrangement within the octave of steps and half steps, the half steps occurring between 3-4, and 7-8. Reading — for whole step and — for half step the pattern is

```
1-2-3 4-5-6-7-8
```

Wherever this pattern is superimposed on the keyboard the result is a Major Scale.
Ex. Key of C Major

C being 1 must progress 1 whole step to 2 D
D " 2 " " " " " " " 3 E
E " 3 " " half " " 4 F
F " 4 " " whole " " 5 G
G " 5 " " " " " 6 A
A " 6 " " half " " 7 B
B " 7 " " half " " 8 C

The result being the Scale of C Major

Because there are no sharps or flats entailed the signature of the key of C Major is said to be "no sharps, no flats". A signature is the number of sharps or flats placed at the beginning of a composition to identify its key.

Beginning on G and using the same pattern we find

G being 1 must progress 1 whole step to 2 A
A " 2 " " " " " " " 3 B
B " 3 " " half " " 4 C
C " 4 " " whole " " 5 D
D " 5 " " " " " " 6 E
E " 6 " " " " " " 7 F#
F# " 7 " " half " " 8 G

N.B. E must progress 1 whole step so F must be raised to F#. The signature is 1# F.

* Read F# because of signature.
The same procedure starting on D gives
1-2-3 4-5-6-7 8
Signature 2# F and C

* Read F# and C# because of signature.

Starting on A
Signature 3# F, C and G

* Read F#, C#, G# because of signature.

It happens that the fifth tone in each new scale gives the starting point of the scale whose signature increases by one sharp.

Using this as a formula we might construct a chart such as this

<table>
<thead>
<tr>
<th>Key of C Major</th>
<th>no # no b</th>
<th>count up to five to G</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; &quot; G &quot;</td>
<td>1# F</td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; &quot; D</td>
</tr>
<tr>
<td>&quot; &quot; D &quot;</td>
<td>2# F, C</td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; &quot; A</td>
</tr>
<tr>
<td>&quot; &quot; A &quot;</td>
<td>3# F, C, G</td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; E</td>
</tr>
<tr>
<td>&quot; &quot; E &quot;</td>
<td>4# F, C, G, D</td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; B</td>
</tr>
<tr>
<td>&quot; &quot; B &quot;</td>
<td>5# F, C, G, D, A</td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; F#</td>
</tr>
<tr>
<td>&quot; &quot; F# &quot;</td>
<td>6# F, C, G, D, A, E</td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; C#</td>
</tr>
<tr>
<td>&quot; &quot; C# &quot;</td>
<td>7# F, C, G, D, A, E, B</td>
<td></td>
</tr>
</tbody>
</table>
Similarly when we count up four instead of five we find the starting point for the scale which adds one flat to its signature.

The fourth tone in the scale of C is F

<table>
<thead>
<tr>
<th>Key of F Major</th>
<th>count up four to Bb</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; &quot; Bb &quot;</td>
<td>2b B, E</td>
</tr>
<tr>
<td>&quot; &quot; Eb &quot;</td>
<td>3b B, E, A</td>
</tr>
<tr>
<td>&quot; &quot; Ab &quot;</td>
<td>4b B, E, A, D</td>
</tr>
<tr>
<td>&quot; &quot; Db &quot;</td>
<td>5b B, E, A, D, G</td>
</tr>
<tr>
<td>&quot; &quot; Gb &quot;</td>
<td>6b B, E, A, D, G, C</td>
</tr>
<tr>
<td>&quot; &quot; Cb &quot;</td>
<td>7b B, E, A, D, G, C, F</td>
</tr>
</tbody>
</table>

Upon each key in any scale a simple chord may be constructed, built up in thirds from the lowest tone as root, in the key of C for example

\[
\begin{align*}
I & \ II & \ III & \ IV & V & VI & VII & \ VIII \\
\end{align*}
\]

The chords derive their respective names from their position in the key. The I chord is so called because it is built on the first scale step. The V chord, because it is built on the fifth scale step. Given their specific names

I  Tonic
II  Supertonic
III Mediant
IV Subdominant
V Dominant
VI Submediant
VII Leading Tone

the chords are referred to as "The Tonic", "The Dominant" "The Sub-dominant", etc., according to their number in the scale.
These chords all have definite characteristics. The I, IV, and V chords in Major keys are called Major chords and because the arrangement of their intervals is the same (Major third and Perfect fifth) they all give the same impression to the ear. The II, VI, and III are Minor in Major keys, and again because of the arrangement of intervals (Minor third and Perfect fifth) they have the same character. The VII is a Diminished chord (Minor third and Diminished fifth) and sounds unlike any of the others. How they perform or progress is due to Tonal Magnetism.

What is familiar to us in Physics as the Law of Gravitation, in Music is known as Tonal Magnetism. By centrifugal force all the tones of a key and many borrowed from other keys are whirled about one focal point, the keynote, or Tonic Chord, and brought inevitably to a satisfactory conclusion there. Seven in the scale because of its very weakness, has a strong urge to rest on eight. Six leans to five, four to three, and two either to one or three; from which it may be seen that the static tones are those of the Tonic Chord, one, three and five, with the others, two, four, six, and seven being drawn to them as if to a magnet.
As definite as the proclivities of these single tones, are the tendencies of chords. The V chord, containing both the restless tones two and seven pulls strongly to the I. The IV progresses normally and easily to the V and is used more consistently than any other to impel the V into the I at the close of a composition. In any Hymnal may be found illustrations of this cadence.

Other examples

"America"

Key of G Major

"All Through the Night"

Key of Ab Major
"Yankee Doodle"

Key of A Major

"Italian Folk Tune"

Key of E Major

"Czech Folk Tune"

Key of D Major
The II chord, having two tones in common with the IV, four and six of the scale, may be used interchangeably with it. Because of its Minor quality, variety in tone color is attained.

Examples

"Battle Hymn of the Republic"

Key of Bb

"Loreley"

Key of Db
"Carry Me Back To Old Virginia"

Key of Bb

The illustrations used here are of Final Cadences. A Cadence is a group of related chords bringing to a close a Phrase or group of related measures. Under "Phrasing" this will be discussed in further detail. The number of Cadences is unlimited, the Final Cadence, however, is almost invariably either V-I or IV-I. Semi Cadences may end on V, VI, IV, II, or I in inversion.

The inversions of chords adds illimitable variety and enhances the natural tendencies of Tonal Magnetism.

Key of C Major
Chords traveling in root positions would be extremely ponderous and unwieldy but with the addition of inversions there is a great flexibility. The choice of chord and inversion is a matter of timing, for music, being kaleidoscopic, must receive impulses to preserve momentum and motility. Composers are guided constantly by these flexions and extensions in the realm of sound. To attempt a forced landing on the precarious stability of an inverted I chord in a Final Cadence would be as hazardous as a leap to a toe position at the close of a dance. There is poise, stance, and quicksilver balance in the movement of chords, governed by their innate qualities and characteristics.

The Minor Scale Pattern

Minor keys, technically, react in the same ways as do the Major, the chief difference lying in number relationships. The pattern of the Minor Scale is 1-2 3-4-5 6-7-8. This is known as the Normal, Pure, Natural, or Original Form of the Minor Scale. Starting with A and following the same procedure as for the Major the following chart is formulated.

<table>
<thead>
<tr>
<th>Key of A Minor</th>
<th>no # no b</th>
<th>count up five to E</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; E &quot;</td>
<td>1# F</td>
<td>&quot; &quot; &quot; &quot; &quot; E</td>
</tr>
<tr>
<td>&quot; B &quot;</td>
<td>2# F, C</td>
<td>&quot; &quot; &quot; &quot; &quot; F#</td>
</tr>
<tr>
<td>&quot; F# &quot;</td>
<td>3# F, C, G</td>
<td>&quot; &quot; &quot; &quot; &quot; C#</td>
</tr>
<tr>
<td>&quot; C# &quot;</td>
<td>4# F, C, G, A</td>
<td>&quot; &quot; &quot; &quot; &quot; G#</td>
</tr>
<tr>
<td>&quot; G# &quot;</td>
<td>5# F, C, G, A</td>
<td>&quot; &quot; &quot; &quot; &quot; D#</td>
</tr>
<tr>
<td>&quot; D# &quot;</td>
<td>6# F, C, G, D, A, E</td>
<td>&quot; &quot; &quot; &quot; &quot; A#</td>
</tr>
<tr>
<td>&quot; A# &quot;</td>
<td>7# F, C, G, D, A, E, B</td>
<td></td>
</tr>
</tbody>
</table>
Key of D Minor  
1b B  
G  
C  
F  
Bb  
Eb  
Ab  

Count up four to G  
C  
F  
Bb  
Eb  
Ab  

There are also the Harmonic form (raises the seventh step) and the Melodic form (raises six and seven ascending and lowers them both descending) but neither of these forms changes the signature of the key.

Example of A Minor in its Three Forms

Normal, Original, Natural or Pure

Harmonic

Melodic
Characteristics of Chords and Inversions

Since the Harmonic Form came into existence for the sake of harmony or chord progression it will be the form used for illustration.

As will be seen the chords have taken on different interval relationships. The I and IV are Minor (Minor third and Perfect fifth), the V and VI are Major (Major third and Perfect fifth), the II and VII are Diminished (Minor third and diminished fifth) and the III is Augmented (Major third and Augmented fifth). The Tonal Magnetism is altered very little but to this diversity in chord quality is due the difference in mood between Major and Minor.

The ear is quick to detect different color in the resolution of V-I and V-VI in Major and Minor keys.

Speaking technically movement of chords through music is comparable to movement of the body through space. As there are certain laws of balance controlling the choice of position of chords,
so are there muscular laws of balance governing the choice of forms of locomotion. The recognized elemental forms of locomotion are eight in number:

1. Walk
2. Run
3. Leap
4. Hop
5. Jump
6. Gallop
7. Slide
8. Skip

The Walk and the Jump are like chords in Root position—heavy, static and cumbersome. The others are the inversions—light, pliant, and buoyant.

We have seen how some chords progress to others with ease and naturalness while progression to still others is laborious and inharmonious. H'Doubler\(^1\) says that:

"It is true that, in translating rhythmic patterns into step patterns, there is a choice of any of the elemental forms of locomotion. However, it will be discovered, with experience, that the particular sequence of steps is important if ease of execution is considered. For example, a leap following a hop is often difficult, particularly if the time value of the hop is short.

```
| STEP | HOP | LEAP |
```

The above is a possible pattern, but hard to perform. Then again there is a tendency to substitute a leap for a long time-value.

---

This is probably due to the fact that the range of a leap is usually long, and therefore the longest time-value is thought of in connection with it. The actual leap itself, though has been taken in the time preceding the duration called the leap, and hence the long time-value is taken up by maintaining balance, which is hard especially for the beginner.

This is possible—

\[
\text{STEP} \quad \text{STEP} \quad \text{STEP} \quad (\text{balancing}) \quad \text{STEP} \quad \text{STEP}\n\]

But the following is better, for the time given the leap in the air is longer;

\[
\text{STEP} \quad \text{LEAP} \quad \text{STEP} \quad \text{STEP} \quad \text{LEAP} \quad \text{STEP}\n\]

When flexion and extension and varying degrees of muscle tension are combined with these elemental forms of locomotion the quality of movement is altered. We begin to perceive flavor and color as in the Major and Minor chord resolutions. Because of our structural form, there result idioms of body movement and locomotion that function as natural groupings or rhythms. By starting with these more familiar forms, we have a fund of instinctive knowledge from which to build more complex forms which may, in their turn, serve as expressive
A musical composition is like a journey. The traveler starts from home, wanders through few or many lands and finally returns home. So does a composition start at a focal point, sojourn through few or many other spheres and then return to its starting point. These spheres are the keys referred to earlier. If a composition is written, for instance, in the key of G Major, those seven tones G-A-B-C-D-E-F# and the chords built upon them, with their laws of Tonal Magnetism, are the focal point from which deviations are made into few or many other keys always with the certain knowledge of return to the original Tonality.

The analogy in Dance is Unity of Characteristic Movement. There may be numerous divagations but they must not be "out of character". Variety may be attained in many ways but the sojourner must be aware that he is returning to the beginning Tonality.

Harmony progresses through Time and Movement through Space in Time. It is the symmetrical divisions of Time into group units that produces Rhythm.
CHAPTER III

RHYTHM

Because there can be no experience of infinity, no human mind can grasp the span of infinite duration. Of necessity man has devised for himself means of measuring events in time. There is the calendar which marks for him the rhythm of the seasons of the year, the clock, measuring off in group units, the hours of the day. He has come to recognize the rhythm of production, the period of dormancy in trees and flowers and the regular timely burgeoning into new life; the routine migration of birds; his own breathing; the beat of his heart; the ebb and flow of the tide; even his hunger habits demand approximately five-hour periodicity.

In music, there are also devices for measuring off these constantly recurring events in time. Like a clock, which mechanically marks time units of varying degrees, seconds, minutes, hours, only to underlie the whole sweep of events materializing, Music has its Score with Staff, bars, measures and note values underlying the whole sweep of rhythm that gives it life and meaning.

The bare device upon which units of time may be measured in Music is the Staff.
Bars are added to the staff making measures much like pecks and quarts and pints. In some measures there are more beats than in others but the number will be consistent (with some exceptions) throughout.

A "Time Signature" is added. This consists of two numbers written fractionally at the beginning of the staff to indicate how many beats are to be in each measure and what kind of note shall be given one beat. For example

\[
\begin{align*}
\frac{4}{4} & \quad \frac{3}{4} & \quad \frac{6}{8}
\end{align*}
\]

The upper figure represents the number of beats in each measure. In Music only two basic meters are recognized duple, and triple. All others are multiples or combinations of these two. The writer here wishes to stress the cardinal importance of the accent. Without accent no meter is discernible. When rowing a boat the same distance is covered by the oars in the forward as in the backward movement but the pull of the arms as the oars go forward, and the leisurely release for the backward stroke will make clear what is meant by accent. In duple meter there is one accented and one unaccented beat. The natural accent always falls on the first count.

That the kinesthetic sense may benefit try clapping the following

\[
\begin{align*}
\frac{1-2}{\wedge} & \quad \frac{1-2}{\wedge} & \quad \frac{1-2}{\wedge} & \quad \frac{1-2}{\wedge}
\end{align*}
\]
The sound should be

Loud-soft; loud-soft; loud-soft; loud-soft. or
Strong-weak; strong-weak, etc..

The upper figure in the Time signature in this instance would be 2

In triple meter there is one accented beat and two unaccented ones

\[
\text{Clap } \begin{array}{cccc}
\wedge & 1-2-3 & \wedge & 1-2-3 \\
\wedge & 1-2-3 & \wedge & 1-2-3 \\
\end{array}
\]

The sound should be

Strong-weak-weak; strong-weak-weak; strong-weak-weak, etc..

The upper figure in this instance would be 3

This upper figure always represents the underlying beat.

When the underlying beat is four, we have a multiple of two giving a heavy accent at the beginning of the first group of two and a lighter accent at the beginning of the second group of two.

\[
\text{Clap } \begin{array}{ccccccc}
\wedge & 1-2-3-4 & \wedge & 1-2-3-4 & \wedge & 1-2-3-4 \\
\wedge & 1-2-3-4 & \wedge & 1-2-3-4 & \wedge & 1-2-3-4 \\
\end{array}
\]

The sound should be

Strong-weak-medium-weak; strong-weak-medium-weak, etc.

The upper figure is 4

When the underlying beat is six, we have a multiple of three, giving an accent at the beginning of the first three group and a lighter accent at the beginning of the second three

\[
\text{Clap } \begin{array}{cccccccc}
\wedge & 1-2-3-4-5-6 & \wedge & 1-2-3-4-5-6 & \wedge & 1-2-3-4-5-6 & \wedge & 1-2-3-4-5-6 \\
\wedge & 1-2-3-4-5-6 & \wedge & 1-2-3-4-5-6 & \wedge & 1-2-3-4-5-6 & \wedge & 1-2-3-4-5-6 \\
\end{array}
\]

The sound should be

Strong-weak-weak-medium-weak-weak; etc. (accents giving a pulse of 2)

The upper figure is 6
When the underlying beat is 9, we have a multiple of three giving an accent at the beginning of the first group and a lighter accent at the beginning of each of the other groups.

Clap  \[1-2-3-4-5-6-7-8-9\] etc.

The sound should be

\[\text{Strong-weak-weak-medium-weak-weak-medium-weak-weak; etc.} \]

(Accents give a pulse of three)

The upper figure is 9

When the underlying beat is twelve, we have a multiple of three giving a strong accent at the beginning of the first group of three, a lighter accent at the beginning of the second, third and fourth groups of three.

Clap  \[1-2-3-4-5-6-7-8-9-10-11-12\] etc.

(Accents give a pulse of 4)

The sounds should be

\[\text{Strong-weak-weak-medium-weak-weak-medium-weak-weak-weak-weak; etc.} \]

The upper figure is 12

When the underlying beat is five, we usually have a combination of two and three. Different effects are obtained by inverting the accent. The strong accent may fall at the beginning of the two group followed by a lighter accent at the beginning of the three, or the three group may come first with the secondary accent coming at the beginning of the two group.

Clap  \[1-2-3-4-5 \quad 1-2-3-4-5 \quad 1-2-3-4-5 \quad 1-2-3-4-5 \] etc.

or

\[1-2-3-4-5 \quad 1-2-3-4-5 \quad 1-2-3-4-5 \quad 1-2-3-4-5 \] etc.
The accents give the effect Long-short; or Short-long.

The upper figure is 5

The underlying beat may also be seven, giving a combination of three and four

Clap: $1-2-3-4-5-6-7$ | $1-2-3-4-5-6-7$

or

$\wedge$ | $\wedge$

$1-2-3-4-5-6-7$ | $1-2-3-4-5-6-7$

The accents give the same effect as in 5 meter.

The upper figure is 7

Superimposed upon these various underlying beats may be an infinite variety of combinations of time values.

Notes, representing tones, are classified as "Whole", "Half", "Quarter", "Eighth", "Sixteenth", "Thirty-second", and "Sixty-fourth".

Rests, representing silence, are given the same classifications.

<table>
<thead>
<tr>
<th>Notes</th>
<th>Rests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Whole</td>
<td></td>
</tr>
<tr>
<td>1/2 Half</td>
<td></td>
</tr>
<tr>
<td>1/4 Quarter</td>
<td></td>
</tr>
<tr>
<td>1/8 Eighth</td>
<td></td>
</tr>
<tr>
<td>1/16 Sixteenth</td>
<td></td>
</tr>
<tr>
<td>1/32 Thirty-second</td>
<td></td>
</tr>
<tr>
<td>1/64 Sixty-fourth</td>
<td></td>
</tr>
</tbody>
</table>

The lower figure of the fractional meter signature will be one of these, 2, 4, 8, 16, meaning the unit of value, or what kind of note is to be given one beat. If 4 is the lower figure a quarter note will be given one beat and every other value will be gauged accordingly. When the number of combinations possible with only
the quarter note as unit of value is considered, it is obvious that the sum total of possibilities is incalculable.

Assuming that 4/4 is the meter signature it will now be clear that within each measure four counts will be accounted for and that each count will be the equal of one quarter note.

THE WHOLE NOTE

The Whole note being equal, as we have seen, to four quarter notes, fills an entire measure in 4/4 time.

![Whole Note Diagram]

The Whole note therefore represents but one contact—one movement sustained through four counts, resulting in extreme slowness of motion. In the fundamental forms of locomotion it would be executed by a slow walking step.

THE HALF NOTE

The Half note being equal as we have seen, to two Quarter notes, fills one half the measure in 4/4 time.

![Half Note Diagram]
The Half note therefore represents two contacts within the measure, or movement twice as fast as for the Whole note. The step would still be a walk or any of the others that would lend themselves naturally to slow motion like the jump, or leap.

A combination of Whole notes and Half notes might result in a Phrase like this

![Musical notation]

The Quarter note, we are assuming, is the unit of value and is given one beat.

![Musical notation]

The Quarter note therefore represents one contact to each count, or four contacts to the measure so the speed increases commensurately. The beat still being even, the steps will be a quick walk, leap, hop, or even, if the tempo is fast enough, a run.
A combination of Whole, Half and Quarter notes will result in a phrase such as the following:

```
\begin{align*}
\begin{array}{cccccccc}
\text{W} & \text{W} & \text{W} & \text{W} & \text{J} \\
1-2 & 3-4 & 1-2 & 3-4 & 1-2 & 3-4 & 1-2-3-4
\end{array}
\end{align*}
```

or

```
\begin{align*}
\begin{array}{cccccccc}
\text{R} & \text{L} & \text{L} & \text{R} & \text{J} \\
\end{array}
\end{align*}
```

or

```
\begin{align*}
\begin{array}{cccccccc}
\text{J} & \text{H} & \text{H} & \text{J} & \text{H} & \text{H} & \text{W} & \text{W} & \text{W} & \text{J} \\
\end{array}
\end{align*}
```
THE EIGHTH NOTE

The eighth note, being equal to 1/2 the quarter note, will get only 1/2 count.

The Eighth note, therefore represents two contacts to each beat or eight contacts to the measure. The speed will now demand a running step.

A combination of the values reviewed thus far might suggest phrases like the following:
The Sixteenth and Thirty-second notes, because of the rapidity of repetition are impracticable as units of contact for dance steps.

In addition to 4/4 meter the Quarter note is used as the unit of measure in:

2/4

\[\begin{array}{cccc}
\text{\(\frac{1}{2}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} \\
\end{array}\]

3/4

\[\begin{array}{cccc}
\text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} \\
\end{array}\]

5/4

\[\begin{array}{cccc}
\text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} \\
\end{array}\]

7/4

\[\begin{array}{cccc}
\text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} \\
\end{array}\]

6/4

\[\begin{array}{cccc}
\text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} & \text{\(\frac{1}{4}\)} \\
\end{array}\]
The Eighth note as unit of measure occurs most frequently in

\[ \text{6/8} \]

The uneven forms of locomotion—the Slide, Skip, and Gallop are represented by uneven time values, long-short or short-long.
Another device for prolonging a time value is the dot. A dot is worth half the value of the note that precedes it, consequently is of the same value as the kind of note one lower in the scale of values, as

\[ \dot{\text{d}}. = 3 \text{ counts, 2 for the note; } 1/2 \text{ of } 2 \text{ or } 1 \text{ for the dot} \]

The dot therefore is equal to a Quarter note (1 lower in the scale of values than the 1/2 note)

\[ \dot{\text{d}}. = 1 \frac{1}{2} \text{ counts, 1 for the note and } \frac{1}{2} \text{ for the dot} \]

The dot is equal to 1/8 note (1 lower than the 1/4)

\[ \dot{\text{d}}. = 3/4 \text{ count, } \frac{1}{4} \text{ for the note and } \frac{1}{4} \text{ for the dot.} \]

The dot is equal to a 1/16 note (1 lower than 1/8 note)

With this increased vocabulary we have such possibilities as

\[ \begin{array}{c}
\text{4} \\
\text{1} \text{ } \text{2} \text{ } \text{3}
\end{array} \]

\[ \begin{array}{c}
\text{4} \\
\text{1} \text{ } \text{2} \text{ } \text{3} \text{ } \text{4}
\end{array} \]

\[ \begin{array}{c}
\text{4} \\
\text{1} \text{ } \text{2} \text{ } \text{3} \text{ } \text{4} \\
\text{5} \text{ } \text{6}
\end{array} \]

\[ \begin{array}{c}
\text{6} \\
\text{1} \text{ } \text{2} \text{ } \text{3} \text{ } \text{4} \text{ } \text{5} \text{ } \text{6}
\end{array} \]

* A tie counts the value of both notes but there is but one initial contact.

The infinitude of combinations now available to the composer can never be exhausted.
Dalcroze maintains that "...consciousness of rhythm can only be acquired by reiterated experiences of movements of the whole body." Whether we agree in toto or belong to the school which maintains that actual participation is unnecessary, "the rhythmic and metrical movements effected by an object or by other individuals being equally capable of awakening in a body or mind the perception of those movements"—we do agree that it is impossible to conceive a rhythm without thinking of a body in motion. Hence the close alliance between the rhythm that keeps music in motion in time, and the rhythm that keeps dance in motion in time and space.

When the mechanical details discussed in this chapter are coordinated and "timed" so that they culminate in the propulsion of sound or form through time and space—then rhythm is attained. The greater the continuity of motion achieved, the more perfect the rhythm. From the mechanical metrical beat to the flow of motile rhythm is as far a cry as from the orderly planting of seed to the rippling wheat field; from a rhyming jingle to the magic of poetry; from the steel structure to the architectural masterpiece.

1 Jacques-Dalcroze, Rhythm, Music and Education, p. 80.
PHRASING

Definition

Phrasing, though really a part of Form is of such vital importance that separate space for its discussion seems justified.

There are passages in music where the phrasing admits of more than one interpretation, the intention of the composer being obscure or at least open to dispute, but fundamentally the laws of phrasing are clear and simple.

Means of Determining Phrase

Analogous to the phrase in language, a group of words making complete sense, a musical phrase is a succession of tones making musical sense. Like the literary "phrase" it usually calls for punctuation which, in music, is known as the cadence. There are a number of things that identify a phrase such as length, repetition and the aforementioned cadence. A phrase may be almost any number of measures but certainly the most common numbers are two and four. Quite like a rhyming jingle, the phrase will set itself apart.

Yankee Doodle came to town--phrase
Riding on a pony phrase
Stuck a feather in his hat phrase
And called him Macaroni phrase
Similarly

Key of F

Repetition Semi Cadence with longer note values acting as punctuation, and ending on something other than the key note

Repetition Variety

Final Cadence ending on key-note with longer note value acting again as punctuation
It is immaterial whether this simple melody is thought of as four two measure phrases, or as two four measure phrases with subdivisions. The "sense" is the same. If the song were to be danced it would probably be more in keeping to use two measure phrases. In dance the "punctuation" consists in change of direction, change in movement, or change in dynamics. The change coming at more frequent intervals would give a more characteristic style to Yankee Doodle.

Without words, the sense is just as clear. In the following melody, see how the phrases set themselves apart.
The music would not be so divided that one's sight might grasp this arrangement at once but with a little practice the eye will be able to make its own arrangements. Note how the final measures of each phrase consists of the same note values $\frac{3}{4}$ the sixth count being the beginning of the phrase. Each phrase starts on count six.

When the phrase is consistently comprised of the same number of measures it divulges itself, but often it varies as in the next melody.

![Phrase](image)

It is still not too difficult to identify. The long note value at the end of the first phrase giving a feeling of prolonged suspense, is indicative of a semicadence—the second phrase brings "the sentence" to a final close quite definitely in only three measures.

As an illustration of even phrasing in four measure length let us use Beethoven's Minuet in G

![Phrase](image)
There is great similarity in the phrasing of language—of
poetry, and the phrasing of music; much has been written upon this
subject and makes very interesting and profitable reading. It is
apparent that the beauty of poetry may easily be ruined if read
rhyming line by rhyming line. The "sense" and also the rhythmic
flow frequently demand a carry over into the next line. Quotations
from Ben Jonson\(^1\) will illustrate

Underneath this stone doth lie
As much beauty as could die;
Which in life did harbour give
To more virtue than doth live.

\(^1\) Ben Jonson, "Epitaph on Elizabeth, L. H.", The Oxford Book
of English Verse, p. 222.
The rhyming cadences "lie and die," "give and live" mangle the rhythm while preserving the meter. Reading these lines with stress on the rhyming words completely destroys their beauty. Reading them with cadences only on "die" and "live", the rhythm give inflection and meaning to the verse.

And this—written to the memory of Shakespeare

Soul of the age,

The applause, delight, the wonder of our stage,

My Shakespeare, rise! I will not lodge thee by Chaucer or Spenser, or bid Beaumont lie

A little further, to make thee a room.

When read observing a cadence on the rhyming pairs "age—stage" "by—lie" the verse not only expresses a complete absence of rhythm but a senseless lack of meaning. But when read to make the meaning clear, the rhythm, moving over the subtlety of the unobvious rhyme is richly enhanced.

So with the musical phrase—a cadence marking off a phrase, if subtly handled, will give an impulse to the rhythm that gives meaning as well as beauty to the passage.

Four phrases from the familiar Schubert Impromptu in Ab will be found comparable to the first quotation from Jonson. There are four distinct cadences, yet the meaning is disturbed as was the poem by stress on the "rhyming factors" but given beauty by a continuous movement until the end of the second and fourth lines.

Schubert gives an aid to this division by using a higher register at the beginning of the third line.

A section of the Bb Minor Scherzo of Chopin is analogous to the second quotation from Jonson. It will be noted that Chopin himself takes care of the "carry over" with tied notes.
The * marks the actual cadence dividing this passage into four phrases of four measures each, but the meaning is preserved only when the rhythm is allowed continuity and elasticity of motion.

In dance this vital principle of rhythmic phrasing is admirably exemplified in continuous motion. Never is a phrase ending delineated by static immobility. A gesture follows through. Flexion, extension, rotation,—some phase of technique directs the carry over so that timing results in the rhythm that is the essence of beauty and art.
CHAPTER V

FORM

Organization

Since the earliest manifestation of communication, man has felt the need of organization. He assembled symbols and gave them order that he might give outward expression to his inner thoughts and feelings. Words were formed and in time, grouped into sentences and by degrees there evolved language, with all its structural rules of syntax and grammar. Speech had been given form.

It is generally agreed that historically dance preceded music. Man began expressing his joy, love, hate, fear and religious fervor by movements of his body—for the sheer satisfaction it brought his senses. Soon a percussive accompaniment was instigated by the clapping of hands, later by drums and crude instruments. These instruments varied in pitch and when used in conjunction with a moaning chant, a sort of music was born. As these two incipient arts grew and developed side by side there arose a demand for organization that would clarify communication. In the intricacies of structural form music has advanced far beyond dance but it is to dance forms that music owes the origin of its earliest musical forms.

When a composer of either music or choreography, sets out to assemble, relate and integrate his materials into a communicative whole, his tool is unity.
Unity

Unity is a broad, generic term comprising variety, repetition, proportion, balance, climax, sequence, transition, and harmony.

Dullness would inevitably result if contrasting ideas were not used to throw into relief the chief theme which in its turn should be repeated often enough that emphasis may make clear its significance. Proportion and balance manifest their indispensability in any work of art regardless of medium. Climax, the high point of interest, is the height to which everything leads and from which there must be a resolution. Sequence and transition have to do with the order in which one phrase leads to another. Finally, all good composition demands that there be a harmonious working together of parts. Nothing must be out of key or out of character.

Out of this necessity for organized structure, Music has evolved certain standardized means of presenting its materials—Song Form, Invention, Fugue, Rondo, Sonata, Symphony—to name but a few. Dance Form, based on a musical composition, necessarily borrows the structure of the music, but in its purest state, without musical accompaniment, dance is unrestricted and the possibilities of the choreographer unlimited.

Motif

In the technical development of mechanical form, the simplest device is the motif. The motif may be very short, in some instances consisting of only two notes, but it is the kernel, the nucleus idea around which all else revolves. In Beethoven's Fifth Symphony the
opening four tones-

In Chopin's Seventh Prelude

Upon this nuclear idea the Phrase is built, introducing variety and completing the "sense". When two phrases are connected, as in a compound sentence, one forming, as it were a question, with semi-cadence or rising inflection, the second coming to completion with a more static cadence, as the answer, we have what is known as a Period. An excerpt from a Schubert Impromptu will illustrate.

The next step is a section. A section may be built up of phrases or periods made usually upon one idea, with developments. When a new idea is introduced, a new section is apparent.
The impromptu in Ab will furnish an example

As development this section is repeated an octave higher then a new idea is introduced

With these devices a simple Form may be achieved known as A B. A represents the first section and B the second. Many Schubert Scossaises are of this form.

A more usual form is A B A, the familiar Song Form, wherein there is one idea with its development in the first section A, a new idea and its development in the second section B, and a return to A. Nearly all Art Songs and other short musical compositions follow this pattern. For illustration - the "Valse Allemande" of Schumann.
Because of the direct alliance between musical compositions of the same name, it may be of interest to quote some dictionary definitions of a few dance forms that early composers utilized in their compositions.

Pavane

The Pavane is an ancient Italian dance, popular during the sixteenth century. It was adopted in Spain, France and England and was a favorite pastime in court circles. It was a solemn, stately dance, sometimes accompanied by song.

Minuet

A graceful and stately dance of French origin, the name of which, derived from menu, small, was suggested by little steps. It was introduced into Paris in 1650. At first it was a gay and sprightly dance; but after appearing at court it became grave and very dignified. The first minuet tunes of artistic value were written by Lully in 1653. The court minuets were written in 3/4 time and consisted of two eight bar phrases, each of which was repeated. Mozart's minuet in "Don Giovanni" shows the form exactly. The form was soon extended. As a complement to the first movement a second movement was added, similar in form but contrasted in feeling. This being written, usually, in three part harmony, received the name of Trio, a name retained to the present time, long after the restrictions as to the number of parts has been abandoned. A further enlargement of the form of the minuet consists of the

extension of the number of bars to sixteen. Bach and Handel introduced the minuet into their suites, operas and oratorios. Bach's minuets are remarkable for their variety of form and character. The historic importance of the minuet arises from the fact that it still holds its place in the symphony, the descendant of the suite. The first composer to introduce the minuet into the symphony appears to be Haydn. Examples are also to be found in Haydn's String Quartets. Haydn, however, while retaining the form, changed the spirit and introduced a light hearted humor. The form of Mozart's minuets is identical with Haydn's but Mozart again, changed the spirit and in his hands tenderness and grace take the place of mere exuberance. Beethoven continued the popularity of the minuet. First he followed the form and general characteristics of the minuet but gradually transformed the minuet into a scherzo; and in the great majority of symphonies since Beethoven the scherzo replaces the older form.

Gigue

In music, a light, quick tune or air to be found in the sonatas of Corelli and Handel and other composers until the eighteenth century. The Irish Jig, played to a dance also called a Jig is a lively tune of two or three sections, written in 6/8 time. The Gigue is popular in many nations, is distinguished by various titles and has a certain amount of difference in the steps according to the habits and customs of the people by whom it is adopted. With some it is a sober, steady country dance; with others it is a wild, savage exercise, without point or meaning. With some it

1. Ibid., "Gigue" p. 147, Vol. 16.
is made a means of displaying the agility of the lower limbs of a combined company of dancers; with others it is a terpsichorian drama for two performers, in which all the emotions of love are represented by gestures and cries.

Sarabande

A dance, said to be derived from the Saracens. Its character is grave and impressive. It originated in Spain where it was formerly danced to the castanets. It has a peculiar rhythm, in \(3/4\) time, the accent being placed on the second quarter note in each measure. It became popular in Europe in the sixteenth century but was prohibited for a while in Spain because of its indecency. A modified form, however, was introduced into France and England and became a popular country dance.

Gavotte

Originally a dance of the Gavots or people of the Gap, a department of the Upper Alps in France. It was a peasant dance not unlike a minuet, and happily united liveliness with dignity. It was popular from the sixteenth to the eighteenth century and at one period was in favor at court. After undergoing modification it fell into disuse. The name is also given to a kind of music at first intended for such a dance. It came into great favor and was a frequent movement in suites, sonatas, etc., having been used by Bach and other great composers. In our time it has again become popular.

Allemande

A French dance said to have been invented in the time of Louis XIV. It has the tempo of a slow waltz and consists of three steps made in a sliding manner, back and forth, but seldom waltzing or turning around. The name has also a reference to a German dance of Swabia of which Beethoven's twelve Deutsche Tanze for orchestra are specimens. The Allemande is also the name of a movement in the suite. It usually consists of a figurative melody which has a simple accompaniment.

Courante

An old French dance originated about the middle of the sixteenth century. The oldest specimens are rather rapid, in 3/2 time beginning on the beat. At the beginning of the eighteenth century it became one of the movements of the suite, where it usually follows the Allemande and is contrasted with it. At the same time the tempo became slower and instead of proceeding mainly in notes of even value, dotted notes became the usual movement. The Italian form always preserved the rapid tempo and even movement.

Out of some of these dance forms, and the musical compositions written for them, developed the Suite.

In music, one of the oldest cyclical forms is the Suite. It had its origin in the sixteenth century, when the Stadtpfeifer began to perform several national dances in succession which were in contrasting tempi, but all in the same key. During the seventeenth

century German composers for the pianoforte applied the name Partita to their doubles (Variations). The form reached its culmination in the Suites of J.S. Bach. The style of the Suite is not so much contrapuntal as elegant. The four obligatory movements are; 1) Allemande, 2) Courante, 3) Sarabande, 4) Gigue. As a rule, however, there were more movements, which were inserted after the Sarabande. Such additional movements were known as intermezzo. In modern times composers have also written suites for orchestras, which, however, but slightly resemble their prototypes. Some of the movements are not dance forms, and the principle of contrasting keys is introduced.

The Sonata Form will not be discussed here except in the aspect of its relationship to dance.

In music the sonata is an instrumental composition in cyclical form, originally any instrumental work as opposed to a cantata or vocal work. At first the sonata was almost identical with the suite but it soon abandoned the pure dance forms which the suite embodied, except in the last movement. In the last movement, of the popular dance forms, the minuet survived the longest but was ultimately supplanted by the scherzo, while the Gigue and Chaconne of which Bach left so many examples, were succeeded by the Finale or Rondo.

Current compositions and less recent ones bear the names of many of these dances, but while the general character of the dance is indelibly imprinted, it is equally obvious they were never intended to be danced. Chopin Waltzes find no place in the ballroom,
Ravel's "Pavane pour une Infante Defunte" is for the concert room as is Shostakovich's Polka. But the influence of the dance form is indisputable.

All of the Fine Arts have many things in common but from the beginning of civilization dance and music formed an alliance out of which grew mutually contributive factors, perhaps the greatest of these being an awareness and the capacity for expression of motion in time.
BIBLIOGRAPHY


