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AN ANALYSIS OF ARNOLD SCHOENBERG'S
SUITE FOR PIANO, Op. 25

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

Thomas E. Mayhew, B. M.

Denton, Texas

August, 1962

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CHAPTER I

THE DEVELOPMENT OF TWELVE-TONE MUSIC

Arnold Schoenberg started his composing career as a post-romanticist. His earliest works were written without the benefit of formal pedagogy, and the little instruction he had he received later from Alexander Zemlinsky, who became his brother-in-law. Zemlinsky told a friend in 1902 that he could teach Schoenberg no more. Zemlinsky said, "He knows more than I do now, and what he does not know, he feels. He has a brilliant intellect and an inquiring mind. And he has the greatest amount of sincerity."¹ This statement of Zemlinsky coincides with Schoenberg's philosophy of creativity concerning which he said in 1911 that "Genius learns only from itself; talent chiefly from others. Genius learns from nature, from its own nature; talent learns from art."²

Schoenberg further increased his artistic abilities by turning painter, and like Debussy, was influenced by impressionist painters and symbolist writers. Wassily Kandinsky, a post-impressionist painter who was a member of a group of painters, poets, musicians and dramatists whose aim was "the expression of the soul of nature and humanity,"³ became

¹Marion Bauer, Twentieth Century Music (New York, 1947), p. 209.

²Ibid., p. 211.

³Ibid., p. 211.

interested in the paintings of Schoenberg. This relationship was responsible for the beginning of Schoenberg's philosophy of expressionism in his music. As Schoenberg gets further away from his early romanticism, he attains a state of absolutism, which in his case is a phase of neoclassicism.

Schoenberg's early works appeared at a time when composers lived in the comfortable possession of a well-developed musical language. Anything that was bold or unusual, they sought with all their might to try to stifle.

The trend toward the development of the twelve-tone technique began in the early 1900's, a time when musical materials had been expanded to the point where the foundations of conventional tonal organization (tonality, scales, and root progressions) were being shaken. In describing this development, Leon Dallin states that,

Many composers were content to extend the resources within recognizable limits which preserved essential structural functions. The concept of tonality could be expanded without being lost. Extensive chromaticism could be introduced, modal and synthetic scales substituted for major and minor, without dissipating entirely the values of selective scales. Chord roots could progress freely without becoming unintelligible. Beyond this, increasingly complex sonorities could be assimilated. Within these limits, traditional structural devices were adequate.

Other composers were inclined to pursue the ultimate possibilities of tonal relationship. This led to the point where tonality ceased to exist; where selective scales were abandoned in favor of the all inclusive chromatic scale; where sonority became so complex roots were unrecognizable and root progressions meaningless; where dissonances were used with such freedom distinctions between

them and consonances disappeared. With this situation conventional methods of tonal organization ceased to function. To replace them Schoenberg devised a procedure he called "A Method of Composing with Twelve Tones".⁴

Nowadays, when in many musical circles it is considered good form to be revolutionary, and when Schoenberg has already opened up a way for a new development in music, one is likely to forget what had actually been accomplished between 1900 and 1910, and how much the present young generation owes to the pioneers.⁵

In a lecture given by Schoenberg on "Composition with Twelve Tones", he begins by saying "form in the arts, and especially in music, aims primarily at comprehensibility";⁶ that "comprehensibility" alone is the aim of composition with twelve tones, although it may seem surprising at first in view of the general lack of understanding shown to works composed in this style. Schoenberg then traces the development of chromatic harmony, showing that tonality gradually developed into what he calls "extended tonality", and that at the same time there arose an "emancipation of the dissonance." The ear had gradually become acquainted with a great number of dissonances, and so had lost the fear of their

⁴Leon Dallin, Techniques of Twentieth Century Composition (Dubuque, 1957), p. 181.

⁵Egon Wellesz, Arnold Schoenberg (New York, 1952), p. 22.

⁶Arnold Schoenberg, "Composition with Twelve Tones," Style and Idea (New York, 1950), p. 87.

"sense-interrupting effect". One no longer expected preparations of Wagner's dissonances or resolutions of Strauss' discords. One was not disturbed by Debussy's non-functional harmonies, nor by the harsh counterpoint of later composers. This situation led to a freer use of dissonances, comparable to the classical composer's treatment of the diminished seventh chord. Schoenberg continues by saying that "discords are distinguished from concords not by beauty but by 'comprehensibility'."⁷

In his Harmonielehre Schoenberg suggested that the ear was less intimately acquainted with dissonant notes than consonant ones because the former appeared later in the harmonic series, but "this phenomenon does not justify such sharply contradictory terms as concord and discord."⁸ A closer acquaintance with the dissonances gradually eliminated the difficulty of comprehension, and finally admitted not only the emancipation of the dominant and other sevenths, but also the emancipation of the more remote dissonances of Wagner, Strauss, Mussorgsky, and Debussy. This means in fact that what were formerly regarded as discords could now be treated as freely as the traditional concords, and as may be seen, that is precisely what most modern composers do in practice.

⁷Ibid., p. 88.

⁸Arnold Schoenberg, Harmonielehre (Vienna, 1921), p. 235.

It now seems necessary to follow the further development of Schoenberg and his first pupils, Berg and Webern. "Starting from their twin conceptions of the dethronement of tonality and the free use of the former 'discords', they produced a series of pieces of which the foremost characteristics were their extreme expressiveness and their extraordinary brevity."⁹ The main works of this period (1908-1923) up to the formulation of the twelve-tone technique were Schoenberg's Piano Pieces, Op. 11 and Op. 19; Five Pieces for Orchestra, Op. 16; the dramas Erwartung, Die Glückliche Hand, and Pierrot Lunaire. From Berg came the String Quartet, Op. 3, Three Pieces for Orchestra, Op. 6, and the opera Wozzeck. To this must be added Webern's Five Movements and Six Bagatelles for string quartet, Op. 5 and Op. 10; Four Pieces for violin and piano, Op. 7; and several collections of songs with various combinations of instruments as accompaniment.¹⁰

The first atonal composition of Schoenberg was his Three Piano Pieces, Op. 11, composed in 1909. This was the first of a series of works in which he made a complete break with the past, and the Opus 11 provoked world-wide dissension and criticism.

As illustrated in Figure 1, there is a free use of chromaticism and an avoidance of definite tonal feeling, combined with the ordinary classical device of modified repetition and

⁹Humphrey Searle, Twentieth Century Counterpoint (New York, 1954), p. 72.

¹⁰Ibid., p. 73.

imitation. The opening three-measure melodic phrase from which the entire piece develops employs six tones of the chromatic scale. By the fourth bar ten different tones have been announced.

Fig. 1--Three Piano Pieces, Schoenberg, No. 1, measures 1-6.

Measures 4-6 show the shifting of the rhythmic accents; this follows the principle of "perpetual variation" which became more and more important to Schoenberg as time went on, and led to the complete avoidance of sequential figures and direct repetitions of any type.

More definite steps towards twelve-tone composition may be found in various pieces of Schoenberg written around 1924; these are Schoenberg's Five Piano Pieces, Op. 23, and Serenade, Op. 24. The first four pieces of Schoenberg's Op. 23 are

based in general on the exclusive use of certain intervals, and there are some passages which use an actual serial technique, the fifth piece being Schoenberg's first twelve-tone work.¹¹ A group of chamber-music works appeared at intervals from 1924 on, in which his discovery and development of the "method of composing in twelve tones" was clarified.¹²

Schoenberg thus describes the developments which led to the evolution of twelve-tone composition:

Formerly the use of the fundamental harmony had been theoretically regulated through recognition of the effects of root progressions. This practice had grown into a subconsciously functioning "sense of form" which gave a real composer an almost somnambulistic sense of security in creating, with utmost precision, the most delicate distinctions of formal elements. The desire for a conscious control of the "new" means and forms will arise in every artist's mind; and he will wish to know consciously the laws and rules which govern the forms which he has conceived "as in a dream". He must find, if not laws or rules, at least ways to justify the dissonant character of these harmonies and their successions.¹³

The preceding statement very well sums up the evolution of a technique which has been considered by many to be the only true compositional style of the twentieth century.

¹¹ Ibid., p. 79.

¹² Homer Ulrich, Symphonic Music (New York, 1952), p. 282.

¹³ Searle, p. 81.

CHAPTER II

THE TECHNIQUE OF USING THE TWELVE-NOTE SERIES

Twelve-tone composition is founded on a twelve-note series: Schoenberg calls it a "basic set", but it is also often known as a "tone-row", from the German "tonreihe"; and for English readers "note-series" seems to be the most convenient term.

Adolph Weiss describes the twelve-tone series as "a definite arrangement of all tones of the chromatic scale in a set order. It is applied in all the forms of variation, harmonically or contrapuntally, horizontally or vertically, to the construction of every detail of a twelve-tone composition."¹ Isolated, the series is usually represented in notes of equal value with a limited compass. Before becoming a theme, a series must have a distinctive rhythm and contour.

Such a series should not be considered a scale, but like a scale, a series "is the source of many figurations, parts of melodies and melodies themselves, ascending and descending passages, and even broken chords".² The series functions in the manner of a motive with the combination of notes into chords and their successions being regulated by the order

¹Adolph Weiss, "The Lyceum of Schoenberg," Modern Music (March-April, 1932), p. 69.

²Arnold Schoenberg, Style and Idea (New York, 1950), p. 38.

of its tones. Hence a new series has to be invented for each piece, and from it every note in the piece is derived, whether by using it horizontally as a melody, or vertically as a chord-succession--or by a combination of both methods.³

The possibilities of a series are unlimited: first, because the choice of the series is arbitrary; second, because chordal construction is not restricted to building up by thirds, fourths, or fifths; and third, because the greatest "freedom" in coordination is left to the taste and discretion of the composer.⁴

Thus, the series becomes a "storehouse of motifs" out of which all the individual elements of a composition are to be derived. And indeed, this is its primary function. Moreover, its ceaseless repetitions throughout the whole composition accomplish even more than that. According to Krenek the series "assures the technical homogeneity of the work, by permeating its whole structure, like a red thread which, woven into a fabric, lends it a characteristic color shade, without ever becoming conspicuous as such."⁵

Schoenberg uses these motivic note-groups to build not only the complete thematic material, but all other parts of the

³Humphrey Searle, Twentieth Century Counterpoint (New York, 1954), p. 83.

⁴Weiss, "The Lyceum of Schoenberg," p. 70.

⁵Ernst Krenek, Studies in Counterpoint (New York, 1940) p. viii.

composition as well, such as secondary voices, accompaniments, harmonies, etc. Each note-group may serve as a motive for individual variation. Adolph Weiss lists the methods of varying a motive thus:

1. changing the intervals or notes and holding the rhythms;
2. changing the rhythm and using the same tones or intervals;
3. simultaneous combination of both these methods;
4. inversion;
5. elongation;
6. contraction;
7. elision (of one or more notes);
8. interpolation (of one or more notes);
9. the crab-form (repeating the motive backwards),⁶

In actual serial composition, i. e., composition with the series as basic material, repetitions of small figures and patterns which can be perceived as such, are used freely in the same manner as repeated notes. This also applies to trills, tremolos, and accompanying and embellishing figures. It is not a requirement to finish a series in the same part. When more than one form of the series is in progress, the notes of the various forms may be exchanged between different voices. The notes of one form of the series may be distributed between all the parts, or, each part may have its own form of the series, in which case two or more forms of the series will progress concurrently.⁷

⁶Weiss, "The Lyceum of Schoenberg," p. 73.

⁷Leon Dallin, Techniques of Twentieth Century Composition (Dubuque, 1957), p. 183.

The Series used in the Suite

There are no definite rules regarding the construction of a series, but a few principles, beyond the requirement of using all twelve tones with no repetitions, are generally observed. A variety in intervalic relationships is for the most part desirable. The series of the Suite may be considered typical in this respect since it contains six different intervals; these intervals and their inversions, available through octave transposition of one of the tones, comprise nine of the eleven possible--two intervals, the major third, and its inversion the minor sixth, are not used in this series.

Further, the row used in the Suite has a diminished fifth between its third and fourth notes and between its seventh and eighth notes. The resulting division into three four-note groups makes it possible to couple these groups together both horizontally and vertically, allowing them to overlap one another, and also to introduce the second group before the first, as at the beginning of the Minuett. The presence of these two intervals of equal size within the series not only produces or suggests definite subdivisions of the series which can be used as small independent units, but also allows these groups to be exchanged with one another.⁸

⁸ Josef Rufer, Composition with Twelve Notes Related Only to One Another (New York, 1954), p. 91.

CHAPTER III

TEXTURE IN TWELVE-TONE COMPOSITION

In twelve-tone composition not only the thematic material, but the entire texture, is derived from the series. Composition in this style means primarily a contrapuntal technique, with attention concentrated on the construction and combination of lines. A free association of vertical sounds compensates somewhat for the strict adherence to the order of the series in all voices. Sonority, as a phenomenon independent of linear combinations, is of very little importance in the style.¹ Although principles of harmonic structure and progression are not given by theorists, the effect of the spacing of dissonance and consonance is always given careful consideration by the composer.

Dissonance

Before trying to understand the function of dissonance and consonance in twelve-tone composition, it would be wise to clarify the use of these terms in this idiom. Schoenberg defines consonance "as the closer and simpler relation with the ground-note (fundamental tone), and dissonance as the

¹Leon Dallin, Techniques of Twentieth Century Composition (Dubuque, 1957), p. 186.

more remote and more complicated."² Thus he holds the distinction between consonance and dissonance a graduated one. He continues by saying, "The consonances turn out to be the first overtones; the nearer they are to the ground-note the more productive they are. The more remote the overtones, the less they can be made to fit in with a combination of sounds, and the more they need resolution."³

The degree of dissonance, according to Krenek, can be determined roughly by the number and kind of dissonant intervals contained in all of the component parts.⁴ His views are essentially as follows:

The degree of dissonance
in two-part writing:

1. "Sharp" dissonances are minor second and major seventh.
2. "Mild" dissonances are major second and minor seventh.
3. The fourth may be either consonant or dissonant, depending on the context. (In combination with other intervals their effect usually is that of a consonance.)
4. The tritone lacks the active quality and demand for resolution associated with it in tonal music. It is neutral, as it divides the octave into two equal parts.
5. The remaining intervals are consonant.

The degree of dissonance
in three-part chords:

1. Three consonances (Perfect or augmented triad).
2. Two consonances and one mild dissonance.

²Egon Wellesz, The Origins of Schoenberg's Twelve-Tone System, (Lecture delivered at the Library of Congress, Jan. 10, 1957), p. 25.

³Ibid., p. 25.

⁴Ernst Krenek, Studies in Counterpoint (New York, 1940), p. 30.

3. One consonance and two mild dissonances.
4. Two consonances and one sharp dissonance.
5. One consonance, one mild and one sharp dissonance.
6. One mild and two sharp dissonances.

Krenek quite rightly points out that different inversions of chords may produce different "effects" of sharpness or mildness. Similarly the same chord used in the same position may make quite different effects through variations in dynamics and orchestration.

Tone clusters and close spacing are generally avoided in twelve-tone composition. Sharp dissonances usually are spaced in a manner which emphasizes their resonance and minimizes their harshness, except for special effects. The importance of understanding the function of dissonance is essential because climactic points, both in the form and in the lines, are associated with increased tension in the vertical structure. Although harmonic tension is related to dissonance, the two cannot be considered the same. It must be remembered that other factors such as spacing, dynamics, rhythm, and tempo, also influence tension.

Counterpoint

Harmonic facts in atonality have but a secondary significance and the manifest contrapuntal texture results essentially from a polyphonic conception of music similar to the view held in the Middle Ages before tonality developed. On the relation of harmony and counterpoint to each other, Schoenberg says:

The mutual saturation of these two principles, harmony and counterpoint, is so complete, their distinction or separation so incomplete, that every result derived from voice-leading may be a harmony, and every harmony may have its foundation in voice-leading. Apparently we are turning to "a new era of the polyphonic style", and chords will be the result of voice-leading, justified through melodic content alone. Some day we shall recognize in the harmonies of the most modern writers today the laws of the older periods, only in a broader and more universal application.⁵

Schoenberg rarely writes vertically; his music is for the most part conceived horizontally. The lines or voices travel independently and dissonantly, often creating what is known as "dissonant counterpoint," another twentieth-century term indicating a condition which did not formerly exist.⁶

The extraordinary contrapuntal skill of Schoenberg demonstrates itself throughout Pierrot Lunaire. The seventeenth piece in this work, "Parody", is first a canon and then an inverted canon, while "The Moon-Spot" is a famous example of the crab-canon, a double canon occurring between the piccolo and clarinet, and the violin and cello.⁷

Chord Formations

Some attention must be given those vertical structures found in twelve-tone music. For centuries chords had been built in thirds. Finding these structures inadequate for his

⁵Adolph Weiss, "The Lyceum of Schoenberg," Modern Music (March-April, 1932), p. 72.

⁶Marion Bauer, Twentieth Century Music (New York, 1947), p. 218.

⁷Ibid., p. 223.

musical purpose, Schoenberg first suggested building them in fourths, an interval which he found more useful. Such early experiments resulted finally in the sonorities of the twelve-tone system, in which the chord-in-fourths is only a small and unimportant contributing factor.⁸

Notes from a series may be used simultaneously to make chords. The vertical arrangement of chords formed in this manner is not determined or influenced by the order of the series. Chord tones may be distributed in any order from top to bottom without violating the required order.

Many of the chords used in twelve-tone music are not very different from those used in chromatic harmony, but they are used with more freedom, i. e., have less attachment to a root. However, the feeling of attachment to a root still persists to some extent for those listeners who cannot help hearing roots.

Instead of twelve-tone music floating in a completely non-tonal world, it is rather modulating rapidly from one point to another, and the student, with his knowledge of the tonal past, should be able to recognize the points through which it is floating.⁹

Conventional consonant chords occur but rarely in this idiom and are permitted only when they have little tonal connotations. Some series are constructed with a view to the harmonic effect of certain groups of consecutive notes. On the other hand, consonances should be used with great caution, for the same reason that excludes the use of the octave.

⁸ Ibid., p. 219.

⁹ Humphrey Searle, Twentieth Century Counterpoint (New York, 1954), p. 116.

Atonality

Webster's Dictionary defines tonality as "the principle of key in music, or the character which a composition has by virtue of the relationship of all its tones and chords to the keynote of the whole."¹⁰ Literally, atonality means "without tonality". By substituting twelve independent centers with new tonal and chordal relationships, Schoenberg removed what he considered the limitations of having one tonal center. The gradual development of atonality is very well summed up in the following statement by the composer:

Very soon it became doubtful whether a basic note or root still remained the center to which every harmony and harmonic succession must be referred. Furthermore, it became doubtful whether a tonic appearing at the beginning, at the end, or at any other point really had a constructive meaning. Richard Wagner's harmony had promoted a change in the logical and constructive power of harmony.¹¹

Music depends, then, not only on acoustics, but upon logic and upon those particular laws which result from the combination of tone and tune. Tonality, tending to render "harmonic" facts perceptible and to correlate them, is not an "end" but a "means".¹²

¹⁰ Ernst Krenek, Studies in Counterpoint (New York, 1940), p. 7.

¹¹ Arnold Schoenberg, Style and Idea (New York, 1950), p. 144.

¹² Arnold Schoenberg, "Tonality," The International Cyclopedia of Music and Musicians (New York, 1939), p. 232.

Schoenberg believed that consonant chords will have to disappear from music if the tonal principle is eliminated. "A tonal consonance asserts its claims on everything that follows it--and regressively on all that came before."¹³ Thus consonant chords might disturb the proper balance in the new technique, unless some way were found either of satisfying or of suppressing the requirements of such chords.

These strict views concerning the use of traditional chord structures were somewhat relaxed by Schoenberg in the early 1940's.

In the course of the last ten years, certain strict rules concerning octave doublings and the use of certain fundamental chords of the older harmony have been relaxed to a certain extent. In the first place, it became clear that such isolated happenings were not in a position to transform the "non-tonal" style into a tonal style. There still remain the melodies, rhythms, characteristic phrases and other formal elements which were born together with the style of the emancipation of the dissonance.

Also, if the complete avoidance of a tonal center is found to be contradicted on occasions and in a provisional way, such a contradiction does not necessarily destroy the stylistic merits of a composition.¹⁴

However interesting these late views of Schoenberg may be, the Suite under consideration was composed in the middle 1920's during which period he adhered to his first principles, as the following analysis of the Suite will demonstrate.

¹³ Ibid., p. 1641.

¹⁴ Arnold Schoenberg, "Composition with Twelve Tones," Le Systeme Dodecaphonique (Paris, 1949), p. 26.

CHAPTER IV

ANALYTICAL COMMENTARIES

Praeludium

The first movement is perhaps the most tense, exciting movement of the entire Suite, and serves very well the traditional use of a prelude as an introduction to a series of dance movements. The opening is very typical of twelve-tone composition, with a clear statement of the basic series in the right hand accompanied by its transposition a diminished fifth away in the left hand, as illustrated in Figure 2.

Fig. 2--Suite for Piano, Schoenberg, Praeludium, measures 1-3.

In measure 3 the theme is made even more familiar to the listener by the repeated-note figure in the left hand, which serves as a tension-building device in this first section.

The second phrase begins in the last part of measure 5 and continues for $4\frac{1}{2}$ measures. The first two measures of

this phrase serve as an introduction to a statement of the series in the middle voice, transposed a diminished fifth from the basic series in the left hand; this reversal of the parts of the opening statement is used to close the first section of the movement.

What one may consider the second section of the Praeludium begins in the last part of measure 9, with the second truly "clear" statement of a part of the series as a melodious theme. Such an expressive statement serves to relieve the immense tenseness which has been developed to this point. It consists of the first group of the retrograde inversion of the series. It is emphasized by a contrapuntal accompaniment in the left hand which plays the most liberal arrangement of the basic series used thus far. The theme is continued with the first two groups of the basic series in retrograde.

A shifting of accents at the "poco rit." in measure 11, gives the listener a feeling of rubato and serves as a beginning to the semi-climax at measure 13, which is approached with the simultaneous use of crescendo and accelerando. In measure 14, the tremolo figuration of the series in the right hand, set a diminished fifth away from the basic series in the left hand, serves as a gradual climactic release of tension by means of its harmonic implications and tempo ritard. The tremolo leads to a complete statement of the basic series in chordal writing at measures 15-16 which closes the second section.

The third and final section begins with the series given to the right hand, a diminished fifth away from the basic series in the left. The procedure is again a reversal of the parts of the opening statement in the first section. This final section is composed in such a manner as to create a gradual tension and excitement leading up to the large, final climax at the end of the movement. In measures 19-20 the use of repeated chords now serves as a tension-building device in much the same way as the single repeated-notes served in the first section.

A sharp contrast from ff to pp in measure 20 begins a continual accelerando and crescendo to the final climax at the end of the movement. The first change of meter from the original 6/8 occurs at measures 22 ($3/8$ plus $1/8$) and 23 ($4/8$), giving to the final climax a broad effect. The final climactic measure, again in 6/8 meter, contains the basic series in triplets over the basic series retrograde in duple rhythm in the left hand.

Gavotte

This dance is very similar to the French gavotte of the 17th century: it is in moderate 2/2 time, it begins with an upbeat, and its phrases usually begin and end in the middle of a measure.

The light, delicate character of this movement is achieved by the excessive range over which the series extends. This is a good example of Schoenberg's use of octave displacement, best described as pulling the intervals out of their sockets, i. e., stretching them beyond the limits of an octave, and giving complexity of sound to a truly naive motivic group. The Gavotte illustrates yet another of the many different themes of diverse character which are possible from motivic development.

In the opening statement of the Gavotte, the third group of the series (notes 9--12) appears before the second group (notes 5--8) as illustrated in Figure 3.

The image shows a musical score for two staves, Treble and Bass clef, in 2/2 time. The score is annotated with numbers 1 through 12, representing a series of notes. The notes are: 1 (G4), 2 (A4), 3 (B4), 4 (C5), 5 (D5), 6 (E5), 7 (F5), 8 (G5), 9 (A5), 10 (B5), 11 (C6), and 12 (D6). The notes are placed on the staves with various accidentals and fingerings. The Treble staff starts with a treble clef and a 2/2 time signature. The Bass staff starts with a bass clef and a 2/2 time signature. The notes are connected by lines, indicating a melodic line. The score is labeled 'Fig. 3--Suite for Piano, Schoenberg, Gavotte, measures 1-2.'

Fig. 3--Suite for Piano, Schoenberg, Gavotte, measures 1-2.

This rearrangement may be justified on three grounds: Since the Gavotte is the second movement of the Suite, the series has by now become familiar; each group is treated as an independent unit and does not change within itself--perhaps because there is a resemblance between the first and second groups since the interval between the last two notes of each is a diminished fifth; because it is this third group which forms the unifying idea for the entire movement, its introduction before the second group shows its importance to the listener in the opening statement. It is interesting to note that this third group is repeated in retrograde immediately after the second group, thus serving as a phrase extension which provides the necessary ending at the middle of a measure. This is one of the few instances in the Suite in which a section of the series is directly repeated untransposed.

In the second half of measure 3 the inverted series again appears above the third group as in the first statement, but this time with rhythmic variation. The rhythm of the first four-measure phrase serves as a basis for the entire rhythmic organization of the Gavotte. The first section extends to measure 8, with the third group from the series, appearing in extended octave displacement throughout, providing the general melodic feature. A semi-climax in measure 6 is preceded by a crescendo, and is emphasized by a c''', the highest note in the dance.

The second section begins in measure 8 and continues through the first half of measure 16. Again the third group is used as basic thematic material in its original condensed form. It is treated in sequential fashion beginning in measure 10 and leads to a semi-climax in measure 12.

The third group again appears in extended octave displacement in the latter half of measure 12 where begins a gradual ebbing of rhythmic and contrapuntal activity, further emphasized by a ritard and diminuendo.

The third section begins in the second half of measure 16. Like the beginning, this section is in a surging contrapuntal style which makes further use of the third group of the series in a disjunct melodic figure. A semi-climax is attained at measure 19 where the series appears in retrograde a semi-tone lower than the basic level. The entire measure is treated in sequence, measure 20, a fourth higher than the basic level and leads up to b-flat¹¹.

The remainder of the section starting in the last half of measure 21 and marked by a shifting of accents, may be considered a coda. The movement ends with a sequential treatment of the third group in disjunct melodic form, accompanied by a crescendo leading to the final climax at measure 28.

Musette

The Musette possesses the same character as the pastoral dances of the 17th and 18th centuries from which it takes its name. These were played on a bagpipe containing two chanters and a number of drones, with bellows operated by the arm. The instrument is supposed to have been very fashionable in France during the reigns of Louis XIV and Louis XV.

This delightful Musette is directly related to the Gavotte in character as well as in general texture. Like the Gavotte, it is in 2/2 meter with phrases beginning and ending at the middle of the measure. Also as in the Gavotte, the third group of the series (9--12) serves as the basic thematic material, but appears in its condensed form as opposed to the disjunct melodic style in the Gavotte.

Fig. 4--Suite for Piano, Schoenberg, Musette, measures 1-2.

On the other hand, the Musette differs from the Gavotte in that its sections are more clearly defined: the sections of the Gavotte were smoothly connected by continuous, transitional contrapuntal writing.

The repeated pedal note "g" furnishes the necessary drone for the dance. The consistent presence of this drone, as well as the presence of somewhat traditional chord structures formed by the combination of the other two groups of the series, suggests a feeling of tonality, even though the series is faithfully stated throughout the movement without repetition of tones. As in the Gavotte, the wide spacing of dissonances insures that no undue sharpness will interfere with the light effect of the dance.

In the first section (measures 1-9) the third group figure is made very familiar to the listener by its incessant repetition as a melodic motive. The first phrase approaches a semi-climax in the first part of measure four. The semi-climax is further emphasized by an extension of the last part of the phrase through repetition of the final full measure, its parts being reversed and transposed back to the basic level.

It is interesting to note that the final chord of the semi-climax contains a doubling of its top note, "d". Octave doubling is very unusual in twelve-tone composition but here is perhaps justified by the added emphasis it gives the climax.

The natural rhythmic flow, strengthened by persistent accents on the first and third beats of the measure, is suddenly broken by a shift of accents to the weak beats in measures 6 and 7. In measures 8 and 9 the natural accent on the strong beats of the measure is re-established; the passage leads back to the repetition of the entire first section.

The second section, starting two beats before measure 10, provides a decided rhythmic contrast to the first. The third group may still be recognized in measures 10 and 11, having the same melodic shape as it had in the first section. This familiar shape is changed by a more complex treatment of the series in measures 11-15. Here the row appears in completed form every half measure, but in chordal writing as opposed to the simpler contrapuntal treatment of the first section.

A crescendo and accelerando lead to the climax of the dance at the first beat of measure 14. The remainder of the section permits a gradual release of climactic tension, a ritardando extending to the last half of measure 16. Here the series is stretched over a full measure with the third group of the series again appearing as basic thematic material. The end of this second section, measures 15-20, is marked by a gradual ritard.

The third and final section begins with a free arrangement of the series which yields a sequential pattern consisting

mainly of a five-note ascending chromatic figure. The pattern is continued until the second half of measure 24 and sounds each time at a higher interval. The drone, which has not been so prominent in the second section as in the first, is again emphasized in the third by its insistent presence. In the first part of this section, an added emphasis is given to the third and fourth beats of the measure through strong accents played alternately by the left and right hand.

From the latter part of measure 24 through the latter part of measure 26, the writing serves to recover the character of the first section; the third group, used as a basic thematic figure through the end of the movement, reappears, thus providing an ample passage of introductory character for the "da capo" of the Gavotte.

Intermezzo

A pleading, slow, romantic feeling characterizes this movement and serves as a foil to the cool, classical objectivity of the three preceding dances. Contrast is heightened through the use of a much slower tempo as well as the use of frequent meter changes. In the previous movements the few meter changes were used only for certain broadening effects at climaxes, but now, in opposition to this fitting of the music to the measure, the measure is fitted to the music. Frequent use of *accelerando* and *ritardando* markings aids the relaxed, *rubato* feeling which prevails throughout the movement.

Because of its free character, the sectional division is not so clear in the Intermezzo as in the first dances; nevertheless, certain points of stress and the repetition of previous material give some idea of the Intermezzo's construction.

A procedure similar to that employed in the Gavotte is followed in the Intermezzo, namely, the second group (notes 5--8) overlaps the third group (notes 9--12). The first group is arranged in the form of a pedal figure which acts as a unifying device for the entire movement.

At the beginning, the pedal figure opens in the right hand over a slow statement of an important rhythmic and melodic figure which will be used later as a basis for variation in the left hand. The shape of this figure, first formed by the second group of the series, finds repetition in a similar contour formed by the third group.

Fig. 5--Suite for Piano, Schoenberg, Intermezzo, measures 1-2.

The left hand crosses the right to play an answer to the previous statement, while the right hand continues the pedal figuration a fourth lower than the basic level.

A brief interruption of the consistency of the pedal occurs in measure 4, and a variation of the pedal in triplets at measure 5. The coupling of this triplet figure in the right hand with a considerable variation of, and contrapuntal treatment of, the first melodic figure in the left, serves as the basis of construction until the first beat of measure 13.

The second section begins in measure 13 with the left hand figure used as the basis of construction from measures 13-17, but in a clear statement as opposed to its previous contrapuntal treatment. Measures 18-19 provide a transition

back to a statement (measure 20) related to the beginning, but at a diminished fifth above the basic level. The pedal figure now appears in the left hand and the second group figure in the right. This direct relationship to the beginning continues through measure 24.

Measures 25-26 are constructed from the third group of the series, which is used as basic thematic material as it had been in the Gavotte. The last halves of these measures consist of a diminution of contours of the first halves, but with a four-note chromatic figure added--a procedure accomplished by a considerable variation in the order of the series. Measures 27-30 provide introductory material for the pedal figure which is again treated in triplet fashion over a clear statement of the second group in figuration.

The last section begins in the latter part of measure 33. This section consists of a gradual rise to a large climax in measure 37 by means of a sequential treatment of the series arranged in alternating chords; the crescendo is strengthened rhythmically by the placement of the left hand chords on the offbeat. The passage closes with a statement of the second group figuration in the right hand combined with the left hand pedal in a gradual diminuendo to the end of the movement.

Menuett

The Menuett, in 3/4 meter and moderate tempo, shows the same graceful dignity which characterized the 17th century French dance at the court of Louis XIV.

This is the first movement of the Suite which begins with the second group of the series before the first. Since the row should by now be completely familiar to the listener, this new arrangement needs no justification. The group of notes however, is split into two parts, the upper part beginning with notes 5 and 7, while the lower part, with its own characteristic rhythm, has notes 6 and 8. This splitting up of the groups to form two levels is yet another method of melodic variation possible with the different groups in the series.

Fig. 6--Suite for Piano, Schoenberg, Menuett, measures 1-4.

The first four-measure phrase establishes through its characteristic rhythm, wide spacing of parts, and sensitive handling of leaps, the graceful character of the Menuett. This last point is twice demonstrated in the first phrase: in the second measure, where an upward leap emphasizes the

high point of the phrase; and again in the fourth measure, where a leap is phrased downward. An added emphasis on the third beat of measure 5, caused by a tremolo in the right hand, serves to begin an approach to a semi-climax. The basic shape in measure 5, a diminished fifth above the initial level, appears in sequential treatment in measure 6, a major seventh higher. The semi-climax is finally reached in measure 7 with the appearance of the characteristic rhythm. The climax is gradually left in a manner similar to that in which it was approached, with the basic shape of measure 9 appearing at the basic level, and imitated at measure 10 a semi-tone lower.

The second section begins in measure 12. From measures 12-20 the characteristic rhythm of the Menuett is given a thorough working-out, and it appears in almost every measure in this part. The "forte" marking of this section in contrast to the "piano" marking of the first section, further emphasizes the characteristic rhythm and wide spacing of the series in disjunct melodic skips.

The main climax of the piece (measure 24) is approached in measures 21-23, which use the same basic shape as measures 5 and 6 in the first section, an approach further emphasized by the wide skips in measure 23. The remainder of this section is also directly related to the material from the first section, but somewhat drawn out by extension and repetition of material.

The Trio of the Menuett is composed in the form of a mirror canon, a polyphonic treatment which provides rich melodic variation in the series and furnishes the necessary contrast for the repetition of the sections in the three-section thematic form typical of the minuet.

The series is divided into two groups of 6 notes each, with the first group written in a disjunct melodic style and the second group in a closed form of the series. This contrasting treatment of the series contributes much to the effectiveness of its mirror form.

The basic series begins in the left hand at measure 34 and is faithfully answered in its inverted form in the right hand at measure 35. Another statement of the series appears in the left hand inverted, a diminished fifth from the basic level, and answered by the original form of the series in the right. This mirror treatment continues throughout the Trio, with a later return to the original use of the series in three groups of four notes in measures 40-44.

Gigue

This movement does not stand in so strong a relationship to the characteristic dances of the 17th century suite as its predecessors. It is in duple (2/2) meter rather than the usual triple compound time, and the dotted rhythm of the 17th century French fugal gigue is missing. The Gigue could be more rightly compared to the Italian type, the "giga", which is much quicker than the French type, non-fugal, and with quick running passages over a harmonic bass.

The main figuration in the first section of the Gigue consists of an arrangement of the entire series in a disjunct formation which does not allow any of its groups to appear as a melodic motive in any way. The chief characteristic of this section is the shifting of accents to the second half of the beat on beats two, three, and four of the measure. The second half of the fourth beat is given added emphasis by a sforzando which falls, logically enough, directly before the strong beat on "one" in the next measure.

Fig. 7--Suite for Piano, Schoenberg, Gigue, measures 1-2.

The series is stated four consecutive times in strict order until measure 5. Here the left hand continues the basic figuration stated in the exposition while the right hand plays quick running passages in triplets over this duple division. This part of the section (measures 5-9) consists of a retrograde treatment of the series, a treatment which has not been used in the exposition. The running passages continue upward for two measures and are then shaped downward in measure 7, leading to the climax of the first section in measure 10. An immediate statement of the exposition's figuration follows the climax, with a gradual slowing down and diminuendo to the end of the section.

The introduction of a tonal-like theme opens the second section in measure 14. Tonality is strongly implied because of the basic stepwise shape of the melody, as well as the immediate repetition of several of its previously stated tones. Tonality is further suggested by the accompaniment, a pedal figuration in which several notes of the series occur more than once. The theme serves as a relief from the objective tenseness of the first section.

A brief reference to the characteristic rhythm and basic contour of the first section is made in measure 16 and is followed by an immediate change to writing of a rubato-like character in measure 17. Tonality is again suggested, from the last beat of measure 17 through the second beat of measure 18, by the repetition of several notes in the series before its completion (2 E-flats, 2 G-flats, 2 E's). The figuration

of the opening statement is again introduced in measures 20-24, with a theme in half-notes woven into its texture. The use of the triplet running-passage against the continual rhythmic figure mentioned above, serves to climax this section and leads to a repetition of the entire first part of the Gigue. The third section begins with a broad chordal statement of the series in measure 26. The same rhythmic formation from the first section appears in measures 29-32; here an inner voice is made transparent through a rhythmic shift.

A rapid triplet figure, incorporating the characteristic accent of the figuration, leads to a chordal climax in measure 37 which is obviously related to the climax at measure 26. The climax is followed by a gradual cessation of general activity with an arrangement of the row again used as thematic material and for the same purpose of relief noticed in connection with measure 14. The relaxed feeling is briefly interrupted in measures 43-44 by the use of the running triplet figure, but momentum is slowed down once again through augmentation of the triplets, this time with chordal accompaniment.

The final section of the Gigue begins in measure 47, and could be considered a recapitulation in essence, though it is by no means an exact repetition of the first section. It is composed in such a manner as to generate intense excitement for the final climax of the Suite. In measures 47-54 a semi-climax is built by means of a crescendo marking and the use of a thicker texture. A gradual diminuendo, starting in measure 56

and continuing to measure 68, does not lessen intensity but serves to make more effective the sudden surge to the final climax starting at measure 68. In measures 71-72 the rapid triplet figure appears in descending sequential treatment; finally, an ascending passage of alternating chords brings the Suite to a sudden and brilliant close.

In conclusion, the Suite illustrates points in common with other atonal works of Schoenberg, in particular the Six Piano Pieces, Op. 19, and the Five Piano Pieces, Op. 23. Even though these earlier works are not composed in strict twelve-tone style, the stylistic character is basically the same: the use of rhythms, melodies, and characteristic phrases are similar to those in the Suite.

The Suite differs from Op. 11 and Op. 23 in its furnishing of baroque titles. Schoenberg's use of characteristic dance rhythms and styles similar to those found in the 17th century, serves as an aid to the listener by providing a conventional feeling in a new technique. The twelve-tone technique, primarily a contrapuntal procedure, is in this instance a twentieth century adaptation of the polyphonic writing found in the concise dances of the baroque suite. Further, it is interesting to note that the shape of the third group of the series provides a reminder of a familiar figure used in the baroque, its retrograde (notes 12, 11, 10, 9) producing the letters BACH.

It is evident that nearly all the dances of the Suite are comparatively short. Brevity is necessary in this style

since harmony can no longer serve as a means of distinguishing the features of the form. However, it has been pointed out that the dynamics, tempos, figuration, and accentuation used in the Suite, serve to differentiate the parts quite as clearly as structural functions of harmony had previously.

All the melodic and harmonic events which appear in these six pieces come from the transpositions of the four forms of the basic series. The separate four-note motives appear sometimes melodically as a succession of notes and sometimes in the formation of two, three and four-note chords. Finally, it may be acknowledged that, in the same way that tonal harmony had in the past, the consistent use of the tone row as a compositional basis satisfies the principle of unity which all serious creative artists demand in their works.

APPENDIX

Fig. 8--The four forms of the basic series used in the Suite.

The four forms of the basic series are shown as:

Original (O)	Retrograde (R)
Inversion (I)	Retrograde Inversion (RI)

Their transpositions are indicated by numbers as:

- 1--Basic level
- 2--Semitone higher, Major 7th lower
- 3--Whole tone " , Minor 7th lower
- 4--Minor 3rd " , Major 6th "
- 5--Major 3rd " , Minor 6th "
- 6--Fourth " , Fifth "
- 7--Tritone higher or lower
- 8--Fifth higher, Fourth lower
- 9--Minor 6th " , Major 3rd "
- 10--Major 6th " , Minor 3rd "
- 11--Minor 7th " , Whole tone "
- 12--Major 7th " , Semitone "

Example:

RI₉--Retrograde Inversion a minor 6th higher than the basic level.

TABLE I

NUMBER OF ROW OCCURRENCES IN EACH MOVEMENT
OF THE SUITE ACCORDING TO TRANSPOSI-
TION LEVEL AND FORM OF THE SERIES

Transposi- tion level	Praeludium	Gavotte	Musette	Intermezzo	Minuett	Gigue	Entire Suite
1	18	15	18	22	17	42	132
2		1	5	1		3	10
3				1	1	1	3
4							
5					1		1
6		3	2	4		3	12
7	10	7	1	9	8	18	53
8		3	2	1		2	8
9					1	1	2
10							
11			1	1	1	1	4
12		3	6	3	4	8	24
0	12	14	26	27	14	37	130
I	6	10	8	13	11	16	64
R	6	4			4	17	31
RI	4	4	1	2	4	9	24
Total	28	32	35	42	33	79	249

TABLE II

PERCENTAGE OF ROW OCCURRENCES IN EACH MOVEMENT
OF THE SUITE ACCORDING TO TRANSPOSITION
LEVEL AND FORM OF THE SERIES USED

Transposi- tion level	Praeludium	Gavotte	Musette	Intermezzo	Minuett	Gigue	Entire Suite
1	64	46.7	51.4	52.4	51.4	53.2	53
2		3.1	14.4	2.4		3.8	4
3				2.4	3.1	1.3	9
4							
5					3.1		.5
6		9.4	5.8	9.5		3.8	4.9
7	36	22	2.8	21.4	24.2	22.8	21.3
8		9.4	5.8	2.4		2.5	3.3
9					3.1	1.3	.8
10							
11			2.8	2.4	3.1	1.3	1.6
12		9.4	17	7.1	12	10	9.7
0	42.9	43.7	74.4	64.3	42.4	46.8	52.3
I	21.4	31.3	22.8	31	33.4	20.2	25.6
R	21.4	12.5			12.1	21.6	12.5
RI	14.3	12.5	2.8	4.7	12.1	11.4	9.6

Q
I
R
R
I

The image shows a musical score for six staves. The staves are labeled vertically on the left as Q, I, R, R, I. The notation is heavily redacted with thick black bars. Annotations include double asterisks (**) above the first and second staves, and the number '7' below the first, second, third, fourth, and fifth staves. Some staves also have a vertical bar line and a small '1' below it. The score is organized into measures across the staves.

**Two series of the same form occurring simultaneously.

Fig. 9--Praeludium

O
I
R
RI

The musical score consists of seven staves. The notation is almost entirely obscured by thick black redaction bars. The following table summarizes the visible fingering numbers and their approximate positions on each staff:

Staff	Visible Fingering Numbers
1	1
2	7, 7, 6, 7, 1
3	1, 1, 7, 12
4	6, 1, 7, 12, 8, 8
5	1, 1, 2, 12
6	6, 7, 8
7	1, 1, 1, 1

Fig. 10--Gavotte

O
I
R
R
I

1 2 7

1 12 6

1 12 1

1 1 1 1 1 1 1

8 12 2 1

2 8 1 11 12

1 12 12 2

6 1 1

Fig. 11--Musette

O
I
R
I

The image shows a musical score for a string quartet, consisting of 12 staves. The notation is almost entirely obscured by thick black redaction bars. Only a few numbers are visible, likely representing fingerings or measure numbers. The numbers are: 1 (top left), 8 (top staff), 3 (second staff), 7 (third staff), 7 (fourth staff), 1 (fifth staff), 7 (sixth staff), 11 (seventh staff), 12, 12, 6, 6, 1, 7 (eighth staff), 6, 7, 1, 2 (ninth staff), 6, 7, 12 (tenth staff), 1, 1, 1, 7 (eleventh staff), and 7, 1, 1 (twelfth staff).

Fig. 12--Intermezzo

O
I
R
RI

The musical score consists of ten staves. The notation is mostly obscured by black redaction bars. Visible handwritten annotations include the numbers 1, 7, 12, 3, 9, 5, 11, 7, 13, 7, 11, 7, and 1. There are also two instances of double asterisks (**). The score includes various musical symbols such as stems, beams, and bar lines, indicating a complex rhythmic structure.

**Two series of the same form occurring simultaneously.

Fig. 13--Menuett

O
I
R
R
I

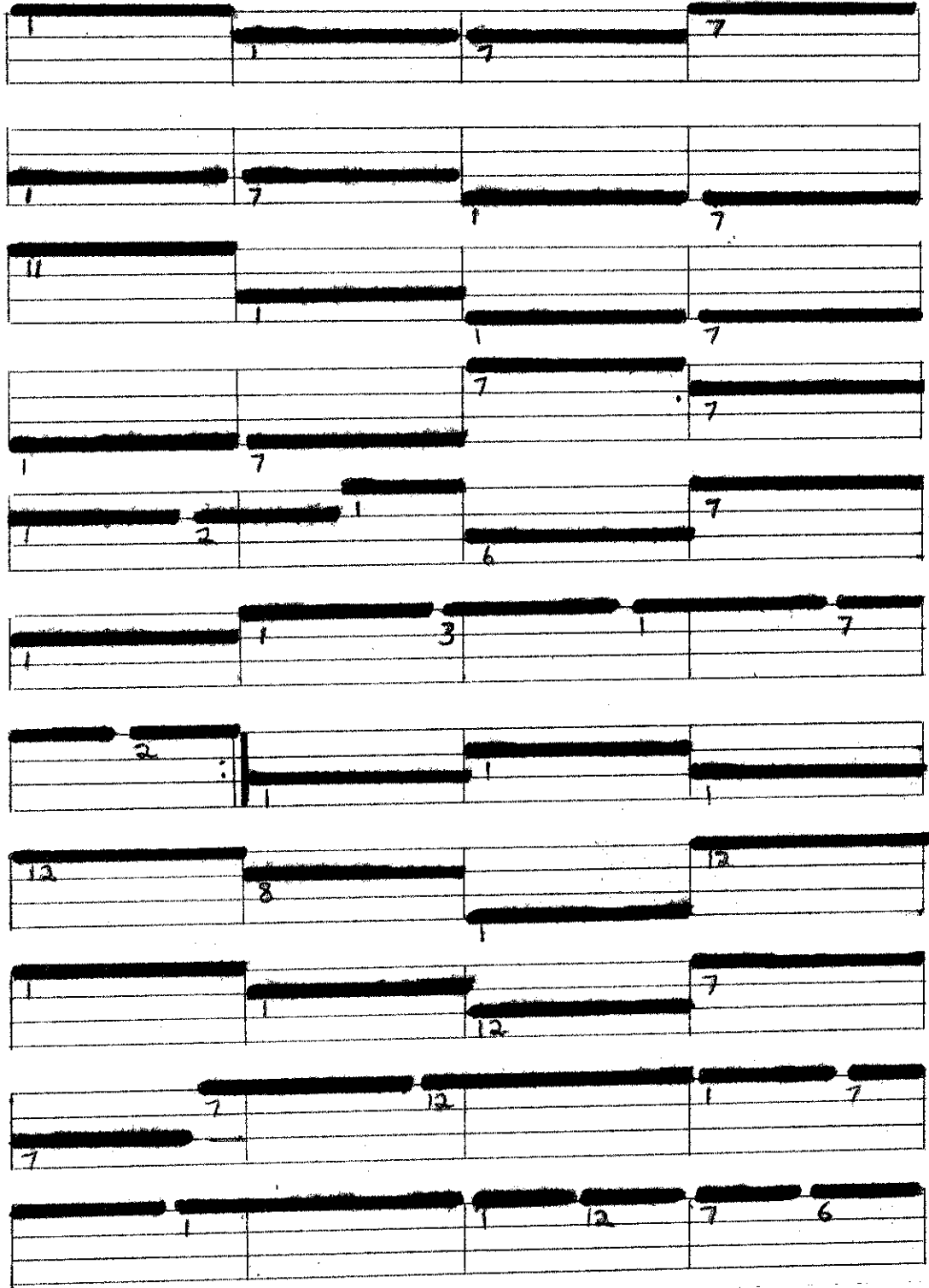
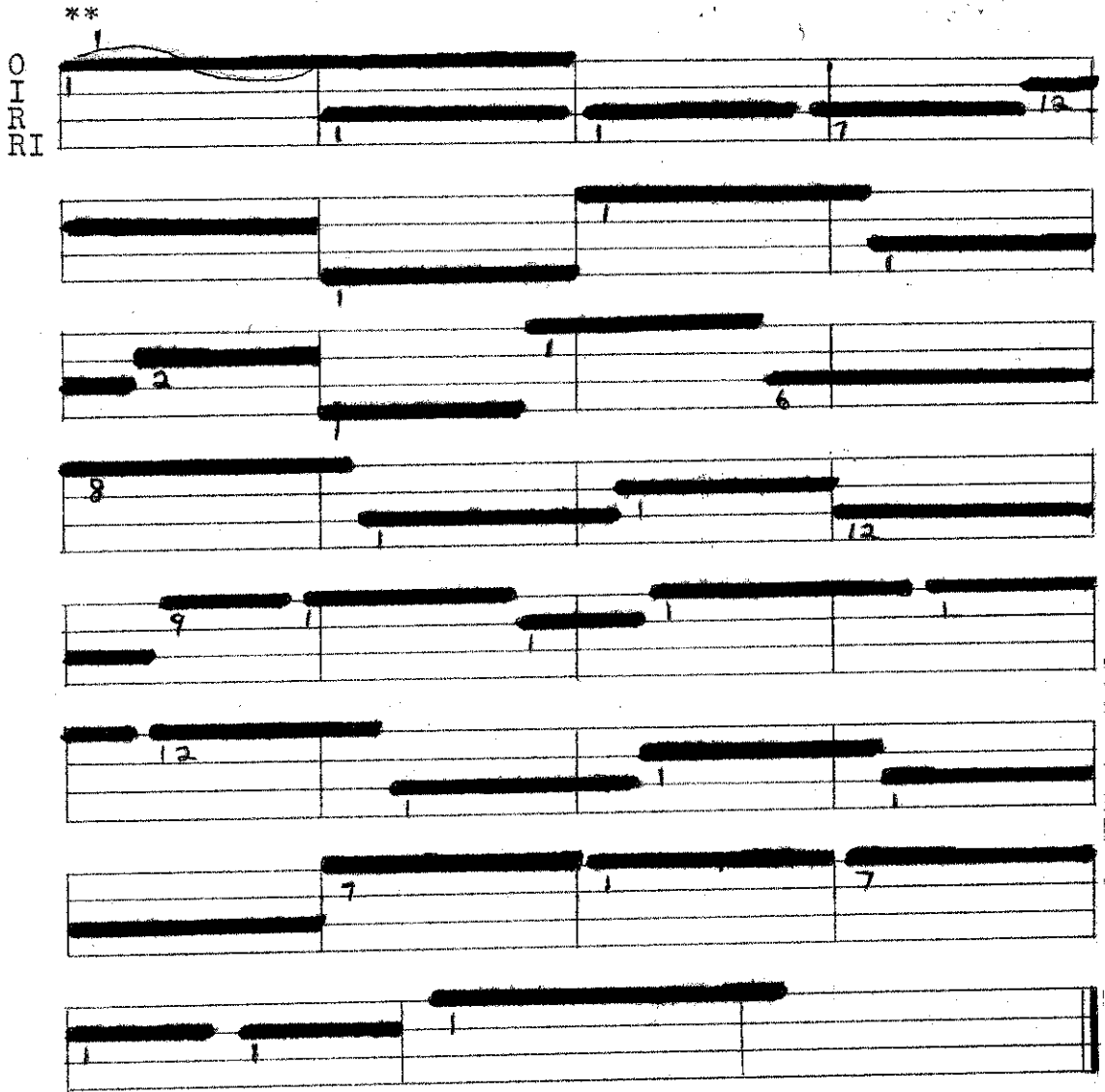


Fig. 14--Gigue



**Two series of the same form occurring simultaneously.

Fig. 14--Continued

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