A STUDY OF THE FUGAL WRITING OF PAUL HINDEMITH

THESIS

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by

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td></td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. THE LIFE OF PAUL HINDEMITH</td>
<td>3</td>
</tr>
<tr>
<td>III. A STUDY OF THE FUGAL WRITING IN THE FIRST PERIOD</td>
<td>5</td>
</tr>
<tr>
<td>IV. A STUDY OF THE FUGAL WRITING IN THE SECOND PERIOD</td>
<td>21</td>
</tr>
<tr>
<td>V. A STUDY OF THE FUGAL WRITING IN THE THIRD PERIOD</td>
<td>32</td>
</tr>
<tr>
<td>VI. A COMPARISON OF THE FUGAL WRITING OF BACH AND HINDEMITH</td>
<td>74</td>
</tr>
<tr>
<td>VII. CONCLUSIONS</td>
<td>84</td>
</tr>
<tr>
<td>A CHRONOLOGICAL LIST OF THE PUBLISHED WORKS OF PAUL HINDEMITH FROM 1917 TO 1952</td>
<td>88</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>96</td>
</tr>
</tbody>
</table>
# List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Range and Tonal Axis of Each Fugue Subject in the <em>Ludus Tonalis</em> (1943)</td>
<td>52</td>
</tr>
<tr>
<td>2. The Length of Each Exposition in the Fugues of the <em>Ludus Tonalis</em></td>
<td>53</td>
</tr>
<tr>
<td>3. Relationship of the Tonal Axes, Order of Entries, and the Use of Strict or Free Statements of the Subject in the Fugues of the <em>Ludus Tonalis</em></td>
<td>54</td>
</tr>
<tr>
<td>4. A Summary of the Order of Entries Given in Table 3</td>
<td>55</td>
</tr>
<tr>
<td>5. Metric Changes in the <em>Septet for Wind Instruments</em> (1949)</td>
<td>71</td>
</tr>
<tr>
<td>Figure</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>1. Hindemith, <em>First String Quartet in F minor</em>, op. 10 (1919), first movement, first theme and subject of the fugal passage</td>
<td>6</td>
</tr>
<tr>
<td>2. Fugal passage from Hindemith's <em>First String Quartet</em>, op. 10 (1919), first movement meas. 72-100</td>
<td>3</td>
</tr>
<tr>
<td>3. Hindemith, <em>First String Quartet</em>, op. 10 (1919), first movement, meas. 91</td>
<td>9</td>
</tr>
<tr>
<td>4. Hindemith, <em>First String Quartet</em>, op. 10 (1919), first movement, meas. 97-100</td>
<td>10</td>
</tr>
<tr>
<td>5. Hindemith, <em>Sonata for Viola and Piano</em>, op. 11, No. 4 (1922), third movement</td>
<td>12</td>
</tr>
<tr>
<td>6. Hindemith, <em>Sonata for Viola and Piano</em>, op. 11, No. 4 (1922), third movement, fugato, meas. 41-46</td>
<td>13</td>
</tr>
<tr>
<td>7. Hindemith, <em>Sonata for Viola and Piano</em>, op. 11, No. 4 (1922), third movement, fugato, meas. 1-13</td>
<td>14</td>
</tr>
<tr>
<td>8. Hindemith, <em>Third String Quartet</em>, op. 22 (1922), first movement, fugato</td>
<td>17</td>
</tr>
<tr>
<td>9. Metric changes in Hindemith's <em>Third String Quartet</em>, op. 22 (1923), first movement, fugato</td>
<td>19</td>
</tr>
<tr>
<td>11. Hindemith, <em>Trio II from Piano Music, Part Two</em>, <em>Series of Small Pieces</em>, op. 37 (1927), meas. 8-10</td>
<td>23</td>
</tr>
<tr>
<td>12. Hindemith, <em>Trio II from Piano Music, Part Two</em>, <em>Series of Small Pieces</em>, op. 37 (1927), meas. 11-12</td>
<td>24</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>13.</td>
<td>Hindemith, Trio II, from <em>Piano Music, Part Two, Series of Small Pieces</em>, op. 37 (1927)</td>
</tr>
<tr>
<td>14.</td>
<td>Fugal passage from Hindemith's <em>Concert Music for Piano, Brass Instruments, and Two Harps</em>, second movement, meas. 226-227</td>
</tr>
<tr>
<td>15.</td>
<td>Hindemith, <em>Concert Music for Piano, Brass Instruments and Two Harps</em> (1930), second movement, meas. 263-266</td>
</tr>
<tr>
<td>16.</td>
<td>Hindemith, <em>Third Sonata for Piano</em> (1936), fourth movement, meas. 40-43</td>
</tr>
<tr>
<td>17.</td>
<td>Hindemith, <em>Third Sonata for Piano</em> (1936), fourth movement, meas. 94-99</td>
</tr>
<tr>
<td>19.</td>
<td>Fugue from the fourth movement of Hindemith's <em>Third Sonata for Piano</em> (1936)</td>
</tr>
<tr>
<td>20.</td>
<td>Metric changes in the fugue from the third movement of Hindemith's <em>Second Sonata for Organ</em> (1937)</td>
</tr>
<tr>
<td>21.</td>
<td>Fugue from the third movement of Hindemith's <em>Second Sonata for Organ</em></td>
</tr>
<tr>
<td>22.</td>
<td>Construction of the fugue from the fifth movement of Hindemith's <em>Sonata for Two Pianos Four Hands</em> (1942)</td>
</tr>
<tr>
<td>23.</td>
<td>Hindemith, <em>Sonata for Two Pianos Four Hands</em>, fifth movement, meas. 49-51, first piano</td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>Hindemith, Sonata for Two Pianos Four Hands (1942), fifth movement, meas. 88-92, first piano.</td>
</tr>
<tr>
<td>25.</td>
<td>Hindemith, Sonata for Two Pianos Four Hands (1942), fifth movement, meas. 147-149.</td>
</tr>
<tr>
<td>26.</td>
<td>Subjects of the fugues in the Ludus Tonalis showing length, meter, and metronome marking.</td>
</tr>
<tr>
<td>27.</td>
<td>Hindemith, Ludus Tonalis (1943), eighth fugue, meas. 1-3.</td>
</tr>
<tr>
<td>28.</td>
<td>Hindemith, Ludus Tonalis, second fugue, mess. 36-38.</td>
</tr>
<tr>
<td>29.</td>
<td>Hindemith's Series One.</td>
</tr>
<tr>
<td>30.</td>
<td>Hindemith, Septet for Wind Instruments (1949), fifth movement, meas. 93-94.</td>
</tr>
<tr>
<td>31.</td>
<td>Lengths of each section of the fugue from Hindemith's Septet for Wind Instruments (1949).</td>
</tr>
<tr>
<td>32.</td>
<td>Hindemith, Septet for Wind Instruments (1949), fifth movement, Old Bern March.</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Paul Hindemith's compositions are, for the most part, contrapuntal; and since the construction of such a traditionally contrapuntal medium as the fugue was brought to such a high degree of musical expression in the fugal writing of J. S. Bach, it is the purpose of this thesis to compare Hindemith's fugal style with the standard set by J. S. Bach.

The procedure has been to extract definitions from standard books and articles which codify the structural elements of the fugal writing of J. S. Bach, and to use these definitions as a basis of comparison with the fugal writing of Paul Hindemith.

For the purposes of analysis, Hindemith's life has been divided, arbitrarily, into three periods. These divisions are explained in Chapter II.

In Chapters III, IV, and V, each fugal work is examined separately for characteristic features of style. The subject, exposition, development, and recapitulation of each fugal work are examined individually, as well as the
use of each work in context and in the composition as a whole. At the end of each analysis, a section of conclusions summarizes characteristic points of structure. It will be observed that no use is made in this analysis of the term "answer" for the reason that the reciprocal relationship of tonic and dominant harmony which characterizes traditional fugal writing is not observed by Hindemith as will be seen in Chapter VII, pp. 76-77.

The comparison of the fugal writing of Bach and Hindemith is made in Chapter VI. This Chapter was deferred until after the analysis of Hindemith's fugal writing was made so that a clear and comprehensive comparison could be obtained.

Chapter VII summarizes the general conclusions of the entire study.

Following Chapter VII, a chronological list of the published works of Paul Hindemith from 1917 until 1952 is given.
CHAPTER II
THE LIFE OF PAUL HINDEMITH

For the purposes of this thesis, Hindemith's life has been divided into three periods proposed by Maxine Block in the Current Biography (1941).

The early phase was formative and eclectic, groping toward an individual idiom. The much discussed Gebrauchsmusik, a product of the second period, is friendly to the machine which shapes present day needs, tastes, and pursuits. The third, or latest is marked by a neoclassical strain, a more sympathetic and "humanized" outlook and a tendency to reconcile linear counterpoint and tonal harmony.¹

These divisions are not distinct, separate, and contrasting; rather, they evolve, each period giving way to the next in a natural sequence.

The first period extends from about 1917 until about 1926. The compositions in this period were mostly chamber music, operas, and songs, reflecting romantic echoes of Wagner, Brahms, Richard Strauss, and Max Reger.²

The second period extends from approximately 1927 until 1934. This was the Gebrauchsmusik period of which Hindemith said:

¹M. Block, editor, Current Biography (1941), pp. 390-315.
²G. Abraham, A Hundred Years of Music, p. 251.
It is to be regretted that in general so little relationship exists today between the producers and the consumers of music. A composer should write today only if he knows for what purpose he is writing. The days of composing for the sake of composing are perhaps gone forever. On the other hand, the demand for music is so great that the composer and consumer ought most emphatically to come at last to an understanding.3

About 1934 Hindemith joined forces with the neoclassical movement, thus entering his third (and current) period.

He joined the faculty of Yale School of Music in 1940, became Battell Professor of Music Theory in 1947, and presently teaches alternate years at Yale University and the University of Zurich, Switzerland.

CHAPTER III

A STUDY OF THE FUGAL WRITING IN THE
FIRST PERIOD

A Fugal Passage from the First String Quartet in
F minor, Op. 10, (1919), First Movement

I. Subject

Range - Minor ninth (E₂-F).¹

Tonal Axis² - Although a clear tonal feeling is not
established, the tonal axis A♭ is the strongest for three
measures.

Length - Three measures.

Meter - 4/4: (Common Time).

Metronome Marking - None.

¹The method used in this study to denote the exact
placement of each pitch on the staff is given below:

²The expression "tonal axis" is a convenient term used
to indicate the "key" in which lies the greater, or more
important, part of any subject, passage, or movement.
Rhythm - This fugal passage is used for the development of a portion of the first theme. The first measure of the theme and the first measure of the subject are given below to show how the juxtaposition of the last two and the first two beats of the first measure of the theme provide the first measure of the subject.

Fig. 1.--Hindemith, First String Quartet in F minor, op. 10, (1919), first movement, first theme and subject of the fugal passage.

The first measure of the subject furnishes the rhythmic germ from which the remainder of the subject grows. The underlying rhythm is regular. The figure (\( \frac{3}{4} \) \( \frac{3}{4} \) \( \frac{1}{4} \)) assumes importance because of its accented appearance at the beginning of the subject. The figures (\( \frac{3}{4} \) \( \frac{3}{4} \) \( \frac{1}{4} \)) and (\( \frac{3}{4} \) \( \frac{3}{4} \) \( \frac{1}{4} \)) both of which occur twice in the subject along with the figure first mentioned, form the basic rhythmic patterns upon which the fugal passage is based.\(^3\)

\(^3\)The accent marks in parenthesis are indications by the author of points of rhythmic stress or emphasis, while the accent marks by the composer are given without parenthesis.
II. Exposition

Length - Fifteen measures (measure 72 through 86).

The tonal axis of each statement of the subject can not be determined because of the use of the tritone in the subject and the extreme chromaticism of the subject.

The order of entry (bass, tenor, alto, and soprano) follows a conventional method used by J. S. Bach in the Well Tempered Clavier for a four voice fugue with the first entry by the bass.4

All of the statements of the subject are strict for three measures.

No countersubject is used.

There is a one measure codetta between the entrances of the viola and the second violin (measure 78) and a two measure codetta between the entrances of the second violin and the first violin (measures 81 and 82) as shown in Fig. 2.

4J. Higgs, Fugue, pp. 72-73.
Because the tonal axis of each statement of the subject can not be determined, the first note of the subject is used.

Fig. 2.—Fugal passage from Hindemith's First String Quartet, op. 10, (1919), first movement, measures 72-100.

III. Development Section

The development section evolves basically from material stated in the exposition with one notable exception. In measure 91 Hindemith introduces a triplet figure in the first violin part that is completely new to the material already stated in the fugal passage. The introduction of this new figure creates a conflict with the duple rhythm of the other parts as illustrated below:

---

5In Fig. 2 and all of the graphs in this thesis, a statement of the subject is indicated by a straight line, while a wavy line indicates free counterpoint.
IV. Recapitulation

No recapitulation is made in this fugal passage.

V. The Fugal Passage as a Whole

Length - Twenty-nine measures (measure 72 through measure 100).

This passage begins with $A^b$ as the strongest tonal axis and is concluded with the tonal axis $C$.

Metric Changes - There is a metric change from $4/4$ to $3/4$ in all parts in measures 81 and 82; after measure 82 $4/4$ is resumed by all parts for the remainder of the passage.

This passage is used as a means of development for a portion of the main theme of the first movement, as shown in Fig. 1, and as a means of modulation between a section in $F$.
major immediately preceding the passage and a section in F minor immediately following it.

VI. Conclusions

A notable characteristic of this fugal passage is the use of long chromatic phrases, particularly in the inner voices, for the purpose of transition and accompaniment. An example of this type of writing, taken from the concluding measures of the fugal passage, is given below:

![Musical notation]

Fig. 4.—Hindemith, First String Quartet, op. 10, (1919), first movement, measures 97-100.

By way of summary, it may be said that the important style characteristics of this fugato are avoidance of clear tonality through use of the tritone and melodic chromaticism and use within the first movement as a means of development and transition.

Fugato from the Sonata for Viola and Piano, Op. 11, No. 4, (1922), Third Movement, Variation No. VI

I. Subject

Range — Major seventh (C – B).
Tonal Axis — The tonality of the subject and the major part of the fugato is obscure for several reasons. Firstly,
the subject itself emphasizes the augmented fifth with G# as the first note and C (in measure 3 of the fugato) as the lowest note of the subject. Secondly, the remainder of the subject after measure three tends to cloud rather than to clarify the tonality. Finally, the first statement of the subject is made by the viola and this statement is accompanied by the piano with a single note on the first beat and a third on the second beat; however, the intervallic relationship of this accompaniment within one measure is a minor seventh and a diminished fifth, all of which tends to neutralize further the tonality.

Length - Ten measures.

Meter - 2/4.

Metronome Marking - None.

Rhythm - The characteristic rhythmic aspect of the subject is the contrast between the duple rhythmic figures that are established in the first four measures and the triplet pattern found in measures 6, 8, and 10.

II. Exposition

Length - Thirty-four measures.

Because of the avoidance of a definite tonality, the tonal relationship between the statements of the subject cannot be ascertained.
The order of entry (alto, soprano, and tenor) follows a conventional method used by J. S. Bach in the Well Tempered Clavier for a three voice fugue.6

All the statements of the subject are strict except the third statement is transposed an octave lower after three measures.

No countersubject is used.

A four measure codetta is used between the entrance of the soprano (piano treble clef) and the tenor (piano bass clef) as the following graph will reveal:

*Because the tonal axis of each statement of the subject can not be determined, the first note of the subject is used.

Fig. 5.--Fugato from Hindemith's Sonata for Viola and Piano, op. 11, No. 4, (1922), third movement.

6Higgs, op. cit., pp. 72-73.
III. and IV. Development and Final Section

Fig. 6, given below, illustrates the development of the subject by the use of stretto.

Fig. 6.—Hindemith, Sonata for Viola and Piano, op. 11, No. 4, (1922), third movement, fugato, measures 41-46.

The concluding tonality is definitely established with B♭ as the tonal axis.

V. The Composition as a Whole

Length - Sixty-four measures.

Metric Changes - None.

The tonality of the fugato is obscure until the closing measures, when a strong cadence establishes the tonality of B♭.

The Sonata for Viola and Piano, op. 11, No. 4, is composed of three movements (Fantasie, Theme mit Variations, and
Finale, with continued variations). The fugato is variation VI and is found in the third movement.

VI. Conclusions

An important characteristic of this fugato is the introduction of the subject with a bass accompaniment that is somewhat homophonic in character as illustrated below:

Fig. 7.—Hindemith, Sonata for Viola and Piano, op. 11, No. 4, (1922), third movement, fugato, measures 1-13.
The bass accompaniment does not maintain the ostinato-like appearance of the first ten measures of the fugato; however, the intervallic relationship within each measure of a minor seventh and a diminished fifth is maintained throughout the exposition.

The foregoing analysis has shown the important style characteristics to be (1) the use of duple and triple rhythms in a rather long subject over, (2) a homophonic-like bass accompaniment, and (3) the obscurity of the tonality until the concluding measures of the fugato.

Fugato from the Third String Quartet, Op. 22, (1923), First Movement

I. Subject

Range - Minor tenth (g - b\textsuperscript{#}).

Tonal Axis - G.

Length - Four measures.

Meter - The metric basis for the subject and consequently for the remainder of the composition is irregular. The first measure of the subject is in 5/4, while the remaining three measures are in 4/4.

Metronome Marking - \( = 58-69 \).

Rhythm - In this composition and the others previously studied in this period it has been noted that Hindemith may develop only a portion of the rhythmic figures introduced in the subject and that he often introduces new rhythmic
figures in the development section. As an example, the figure (\( \begin{array}{c} \downarrow \\ \cdot \cdot \cdot \cdot \cdot \end{array} \)) is used fifty-two times during the course of this movement, while the figures (\( \begin{array}{c} \downarrow \\ \cdot \cdot \cdot \cdot \cdot \end{array} \)) and (\( \begin{array}{c} \downarrow \\ \cdot \cdot \cdot \cdot \cdot \end{array} \)) are used only fourteen times.

II. Exposition

Length - Twenty-two measures (measures 1 through 22).

The tonal relationship of the statements of the subject in the exposition are; first violin, G; viola, F; cello, A\(^b\); and second violin, F#. The order of entry (soprano, tenor, bass, and alto) is irregular when compared to the Well Tempered Clavier by J. S. Bach; for neither volume of that work contains an example of this order of entry.\(^7\)

The statements of the subject by the viola and second violin is strict for three measures, while the statement of the subject by the viola is free.

No countersubject is used.

There are two codettas in the exposition of this fugato, one of three measures between the entrance of the viola and the cello and the second of five measures between the entrance of the cello and the second violin, as illustrated below:

\(^7\)Ibid.
*Indicates the tonal axis upon which each statement is based.

Fig. 8.—Hindemith, Third String Quartet, op. 22 (1923), first movement, fugato.

From Fig. 8 it is apparent that the second violin enters with free counterpoint in measure 12 for seven measures before stating the subject. In order to accentuate the entrance of the subject by the second violin, Hindemith gives that instrument one measure of rest before its statement of the subject at the beginning of measure 12.

III. Development Section

The development section is twenty-six measures in length. The dynamic, melodic, and rhythmic climax is obtained in this
section. The syncopic rhythmic figure which is derived from the subject, is utilized briefly in diminution in measures 35, 36, and 38. Although the figure is found without the tie, the initial accent is maintained.

The development section is characterized by melodic and rhythmic figures, ornamentation, and metric changes which have no precedent in the preceding exposition. His treatment is in sharp contrast with the development sections to be studied in the fugues of the *Ludus Tonalis* (1943), in which the development section is generally reserved for the development of a limited number of the musical ideas stated in the exposition.

IV. Recapitulation

Length - Twenty-nine measures.

Definite recapitulatory material begins in measure 49 with the entrance of the first violin on the tonal axis G followed, after four measures, by the entrance of the viola a major ninth lower on F, in the same manner as the exposition; however, all remaining entrances in the recapitulation are both free and fragmentary. For the first fifteen measures of the recapitulation the cello plays pizzicato accompaniment to the fugal entries of the other three instruments.
V. The Composition as a Whole

Length - Seventy-eight measures (measures 1 through measure 78).

Metric Changes - Fig. 9 illustrates the multimetric character of the fugato.

Fig. 9.—Metric changes in Hindemith's Third String Quartet, op. 22, (1923), first movement, fugato.
Fig. 9 reveals the fact that the use of 3/4 and the one measure of 2/4 is reserved for the middle section. The metric basis for the exposition and recapitulation is a fluctuation between 4/4 and 5/4. With the use of 3/4 and 2/4, the duration of time between the periodic stress of initial accents is shortened and so tends to make the development section the high point of rhythmic intensity.

The fugato begins with a tonal axis of G and returns to this tonal axis for the recapitulation. The last five measures of the composition contain transitional material to the second movement. The final chord of the fugato G#, D, F, A, C, and e# resolves to octaves C#, C#, and c# which begin the second movement.

This fugato is the first movement of Hindemith's Third String Quartet, op. 22.

VI. Conclusions

It has been shown that the characteristic features of style in this composition are the use of frequent metric changes, an avoidance of clear tonality, the introduction of new material in the development section, and an unconventional order of entry.
CHAPTER IV

A STUDY OF THE FUGAL WRITING
IN THE SECOND PERIOD

Trio II from Piano Music, Part Two Series
of Small Pieces, Op. 37 (1927)

I. Subject

Range - Diminished eleventh (a - db2).

Tonal Axis - A.

Length - One measure.

Meter - 9/16.

Metronome Marking - = 76.

Rhythm - The entire subject is constructed on one basic rhythmic pattern (\(\frac{3}{16}\) \(\ddot{\text{E}}\)) which occurs three times in the subject.

II. Exposition

Length - Four measures.

The tonal axes in the exposition are soprano, A; bass, E; and alto, B.

The order of entry (soprano, bass, and alto) is unusual in comparison to the Well Tempered Clavier by J. S. Bach, for that work does not contain a single example of this order of entry.
All the statements of the subject in the exposition are strict for one measure. No countersubject is used.

The order of entry (soprano, bass, and alto) has no counterpart in the Well Tempered Clavier.¹ The first three measures of the exposition and the recapitulation are the same and are given below to illustrate this unconventional order of entry:

Fig. 10.—Hindemith, Trio II from Piano Music, Part Two, Series of Small Pieces, op. 37, (1927), measures 1-3.

¹Higgs, *Fugue*, pp. 72-73.
III. Development

This trio is constructed upon the combination of two fundamental rhythmic figures and . Fig. 11 illustrates the alternation between parts of these two basic figures:

Fig. 11.--Hindemith, Trio II from Piano Music, Part Two, Series of Small Pieces, op. 37, (1927), measures 8-10.

Throughout this composition the thirty-second note is used as the "uniform basis of motion". That is to say, the thirty-second note is the shortest value which occurs most frequently during the composition. One voice does not maintain this basis continually, but through alternation between the three voices the continuity of this basis is

\[ P. \text{Goetschius, Applied Counterpoint, p. 56.} \]
maintained. Fig. 12 illustrates the exception to the statement above, in that two voices maintain the thirty-second note movement simultaneously in a significant and climactic portion of the development section:

During measures 21, 22, and the first two beats of measure 23, the lower voice maintains a pedal tone on F₁. This tone moves to E₁ on the third beat of measure 23 and is resolved to octaves A₁ and A at the beginning of measure 24, thereby helping to obtain a strong cadence on A for the beginning of the recapitulation.
IV. Recapitulation

A clear recapitulation begins with measure 24. The relationship of tonal axes and the order of entries of the exposition are maintained in the recapitulation.

There are two final statements of the subject in the recapitulation, one by the soprano in measure 31 with the tonal axis E, and the other in measure 32 by the bass with the tonal axis D.

An inverted pedal tone is sustained by the soprano and alto voices during measure 33 and the first two beats of the final measure 34.

The concluding measures, by establishing the tonality D, act as transitional material to Trio III. The composition ends on octaves A₁, A, and a, which are resolved with the beginning of Trio III to the tonality D.

V. The Composition as a Whole

Length - Thirty-four measures.

Metric Changes - None.

Trio II begins with a tonal axis of A and the recapitulation begins with the same tonal axis; however, the latter part of the Trio forms a transition to the tonal axis D. Fig. 13 illustrates the over-all structure of the composition and tonal axis relationships employed.
This composition is the second of three Trios included in Hindemith's *Series of Short Pieces*. Trio I ends in C#, Trio II begins in A and ends in D, and Trio III begins in D.

VI. **Conclusions**

The important characteristics of this composition are (1) the construction of this Trio upon two fundamental rhythmic figures, (2) the maintenance of the thirty-second note as the "uniform basis of motion," (3) a clear recapitulation, (4) the use of an unconventional order of entry, and (5) the utilization of a pedal tone for the conclusion of the development section.
A Fugal Passage from the *Concert Music for Piano, Brass Instruments, and Two Harps* (1930)

I. **Subject**

*Range* - Minor sixth (g♭l - b♭).

*Tonal Axis* - The tonal axis B♭ is clearly established for the first four measures.

*Length* - Three measures.

*Meter* - 2/2.

*Metronome Marking* - ♩ up to 112.

*Rhythm* - The only division that is made in the rhythm of the subject is the use, in four instances, of the subject head ( \( \text{figured} \) ) alone, with the dotted half note changed to a whole note.

II. A. **Exposition**

*Length* - Thirteen measures (second movement, measure 226 to measure 239).

The tonal axis relationship is soprano, B♭; alto, C; tenor, F; and bass, B♭.

The order of entry (soprano, alto, tenor, and bass) follows the tradition of the *Well Tempered Clavier* for a four voice fugue with the first entry in the soprano.³

³Higgs, *op. cit.*, pp. 72-73.
The second and third statements of the subject are free. The last statement by the bass, doubled at the octave, is strict for three measures.

No countersubject is used.

Measure 232 connects the alto and tenor entries.

**B. Counter-Exposition**

**Length** - Nineteen measures (measure 242 through measure 260).

The tonal relationship of the statements of the subject in the counter-exposition for three measures are soprano, $E^b$ (stated below and inverted pedal tone on $d^b$); alto, $A^b$; bass and tenor, $D$; and an extra entry in the soprano on the tonal axis $F$.

The order of entry as well as the tonal relationship is illustrated in Fig. 14.

---

**Fig. 14.**—Fugal passage from Hindemith's Concert Music for Piano, Brass Instruments, and Two Harps, second movement, measures 226-227.
The fugues in the *Well Tempered Clavier* which contain a counter-exposition are the eleventh and fifteenth in Book One and the ninth, seventeenth, and twenty-third in Book Two. In these fugues Bach changes the order of entry in the counter-exposition. Fig. 14, however, reveals that the order of entry in the counter-exposition follows that of the first exposition, except that the tenor and bass are introduced together.

Measures 240 and 241 form a short episode in this fugal passage between the exposition and the counter-exposition.

In the counter-exposition the statement of the subject by the soprano is free, the second statement by the alto is strict, the statement by the tenor and bass at the octave is strict, and the extra entry is strict for three measures.

III. and IV. **Development and Final Section**

From measure 262 to measure 274 the composition assumes a more homophonic character because of the use of triads and thirds in eighth note patterns, as illustrated in Fig. 15.
The Composition as a Whole

Length - Fifty-two measures (second movement, measures 226 through 277).

Metric Changes - None.

The first statement of the subject has B♭ as its tonal axis. The fugal passage proceeds through the tonal centers C, F, B♭, E♭, A♭, D♭, F, B, E, and the final statement begins in the tonality of A, but because of the lack of a strong cadence the final tonality of the passage is indeterminate.

This fugal passage is used as a means of recapitulation and further development of the first theme, as the first theme and the subject are the same.
VI. Conclusions

The important characteristics of this fugal passage are (1) the variety of tonal centers through which this rather short passage moves, (2) the use of a counter-exposition, and (3) the treatment of the entire passage as a means of recapitulation and further development of the first theme.
CHAPTER V

A STUDY OF THE FUGAL WRITING

IN THE THIRD PERIOD

Fugue from the Fourth Movement of the

Third Sonata for Piano (1936)

I. Subject

Range - Minor tenth (\(B_b - d_b\)).

Tonal Axis - The first statement of the subject has the
tonal axis \(B_b\) for four measures.

Length - Four measures.

Meter - \(3/2\).

Metronome Marking - \(\frac{3}{4} = 112\).

Rhythm - The subject has two basic rhythmic patterns.
The first rhythmic pattern \(\left(\begin{array}{c}
\frac{3}{4} \frac{3}{4} \frac{3}{4} \\
\end{array}\right)\) is used at the be-
ginning of the subject. The second rhythmic pattern
\(\left(\begin{array}{c}
\frac{3}{4} \frac{3}{4} \\
\end{array}\right)\) is used in measures 2 and 3; however, in
measure 4 it is found slightly extended by repetition of a
fragment, \(\left(\begin{array}{c}
\frac{3}{4} \frac{3}{4} \\
\end{array}\right)\). The use of the first rhythmic
pattern is a distinct feature of the section of recapit-
ulation.
II. Exposition

The exposition is concluded on the first beat of measure 17 in the tonality B♭.

The tonal relationship of the statements of the subject in the exposition are: tenor, B♭; soprano, F; alto, G; and bass, B♭.

The order of entry (tenor, soprano, alto, and bass) has no parallel in the Well Tempered Clavier\(^1\).

The statement of the subject by the soprano is a strict transposition of the first statement by the tenor. However, the statements of the subject by the alto and the bass are free.

No definite countersubject is used in the exposition, although in the development section the second theme from the third movement is used as a countersubject. (See Development Section).

No codetta is used.

III. Development

The development section in this composition is unlike those in the Well Tempered Clavier in that the movement of four independent voices can not always be distinguished. In this section block chords appear, some constructed with as many as six notes. This, together with the frequent use of octave doubling, is exemplified below:

\[^1\text{Higgs, Fugue, pp. 72-73.}\]
Fig. 16.—Hindemith, Third Sonata for Piano (1936), fourth movement, measures 40-43.

The unique feature of the development section is the use, from measure 65 to measure 110, of the second theme from the preceding movement. This theme is used throughout in augmentation. The first statement of the theme, in measures 65, 66, and 67, is in octaves. It is then developed contrapuntally from measure 68 to measure 93. Finally, beginning with measure 94, it is used as a countersubject as illustrated in Fig. 17.
Fig. 17.—Hindemith, Third Sonata for Piano (1936), fourth movement, measures 94-99.

Another distinctive feature of the development section is the use of a new triplet figure in the transitional passage to the recapitulation (measures 116 and 118).

IV. Recapitulation

The recapitulation begins at measure 122 with a complete restatement of the subject in octaves by the soprano and alto parts on the tonal axis Bb. The bass and tenor parts provide a chordal accompaniment to this statement. In
measures 133 and 135 the subject is again stated, this time, however, in block chords containing as many as eight notes, with the dynamic marking fortissimo.

Fig. 18.--Hindemith, Third Sonata for Piano (1936), fourth movement, measures 133-136.

V. The Composition as a Whole

Length - One hundred and forty-eight measures.

Metric changes - None.

This movement begins with the first statement of the subject in B♭ and is concluded in the tonality of B♭. The tonal relationship of the subject groups employed during the course of the entire fugue are shown in Fig. 19.
Fig. 19.--Fugue from the fourth movement of Hindemith's Third Sonata for Piano (1936).

This fugue is the fourth and final movement of Hindemith's Third Sonata for Piano (1936).
VI. Conclusions

The outstanding characteristics of this composition are (1) the use of the second theme from the third movement as an interlude and as a counter-melody to the subject in the development section; (2) the use of block chords and the frequent doubling of parts at the octave; and (3) the shifting of the dynamic climax of the composition from the development section to the recapitulation and coda.

Fugue from the third movement of the Second Sonata for Organ (1937)

I. Subject

Range - Major ninth (e - f#).  
Tonal Axis - A for three measures and two beats.  
Length - Two and two-thirds measures.  
Meter - 3/4.  
Metronome Marking - = etwa 100 - 108.  
Rhythm - The most important rhythmic pattern \( \left( \frac{\text{c}}{\text{c}}, \frac{\text{c}}{\text{c}}, \frac{\text{c}}{\text{c}}, \frac{\text{c}}{\text{c}} \right) \) is introduced at the head of the subject, while the pattern \( \left( \frac{\text{c}}{\text{c}}, \frac{\text{c}}{\text{c}}, \frac{\text{c}}{\text{c}} \right) \), found at the conclusion of the subject, is used much less extensively.

II. Exposition

Length - The exposition extends from measure 1 through measure 20.
The tonal axis relationship is soprano, A; tenor, C; alto, A; and bass (pedal), A. Although the statement of the subject by the bass is an exact transposition of the subject for three measures, the fourth measure of this statement is altered to obtain the tonality of A for the conclusion of the exposition.

The order of entry in the exposition (soprano, tenor, alto, and bass) does not follow the traditional order of entry used by Bach in the Well Tempered Clavier in which the response to a statement of the subject is made by an adjacent voice.\(^2\)

The statements of the subject by the tenor and bass are strict for three measures. The statement of the subject by the alto is free.

No countersubject is used.

Two codettas are used, one between the entrances of the tenor and alto and the other between the alto and bass.

III. Development

The development is characterized by the use of changes to 2/4 and 4/4 meter and the shifting of accents within the basic 3/4 measure. During measures 50, 56, 58, and 60 the second accent is shifted to last half of the second beat, thereby obtaining the effect of a measure of 6/8 instead of 3/4 meter.

\(^2\)Higgs, Fugue, pp. 72-73.
Fig. 20.—Metric changes in the fugue from the third movement of Hindemith's Second Sonata for Organ (1937).
Fig. 20 illustrates the various metric changes during the course of this fugue.

It is apparent from Fig. 20 that Hindemith reserves the use of metric changes for the latter part of the development section. In this respect this Sonata is not unlike the fugato from Hindemith's Third String Quartet. Although that entire fugato is composed of an alternation between 4/4 and 5/4 meter, changes to 3/4 and 2/4 meter are reserved for the development section. (See Metric Changes in Hindemith's Third String Quartet).

VI. Recapitulation

The recapitulation begins at measure 78 with a statement of the subject on the tonal axis A.

The tonal relationships of the statements of the subject throughout the fugue are illustrated in Fig. 21.

Fig. 21 also recognizes the use of the pedal tone on D₁, beginning in measure 61 and extending through the first two beats of measure 64, as well as the pedal tone on A₁ beginning on measure 80 and extending through the first two beats of measure 88. When this latter pedal is sounding another bass voice is added, resulting in four voices above the pedal tone A₁ for the extend of that pedal.
Fig. 21.--Fugue from the third movement of Hindemith's Second Sonata for Organ, (1937).

The final statement of the subject is in octaves, ending in the tonality A.

V. **The Composition as a Whole**

Length - Ninety-three measures.

Metric Changes - (See Development).

Over-All Tonality - This fugue begins and ends with the tonal axis A.

Hindemith uses this fugue as the third and final movement of his Second Sonata for Organ (1937).
VI. Conclusions

The characteristic features of style in this composition are (1) the use of metric changes in the development section, (2) an unusual order of entry, and (3) the use of the pedal tone in the recapitulation on the tonic and the fourth degree of the scale.

Fugue from the Fifth Movement of the Sonata for Two Pianos Four Hands (1942)

I. A. First Subject
Range - Minor tenth (A\textsuperscript{b} - c\textsuperscript{b}).
Tonal Axis - C.
Length - Four Measures.
Meter - 3/2.
Metronome Marking \(-\frac{\text{Q}}{\text{W}}=100 - 108\).
Rhythm - The first subject has two basic rhythmic figures. The first (\(\text{c}\text{.d} \text{.c} \text{.d}\)) is used in the subject only once, while the second figure (\(\text{c} \text{.d} \text{.c} \text{.d}\)) follows the subject head and is used in a melodic sequence three times.

B. First Exposition

Length - Thirty-nine measures.
Order of Entry - The order of entry (tenor, alto, bass, and soprano) is traditional.\textsuperscript{3}

\textsuperscript{3}Higgs, Fugue, pp. 72-73.
The tonal relationships of the statements of the subject in the first exposition are tenor, C; alto, F; bass, A; soprano, E; and soprano in an extra entry, E.

All of the statements in the first exposition are strict.

The composition is so constructed that no one voice is maintained by either piano, with the exception of the bass voice which is generally given to the left hand of the second piano.

The use of codettas between the subject groups in the first exposition, as well as the construction of the entire fugue, is given in Figure 22.

C. Counter-Exposition

Length - After a short two measure codetta, (measures 25 and 26), a counter-exposition begins at measure 27 and extends through measure 32.

The order of entry in the counter-exposition is alto, bass, soprano, and tenor.

The only new tonal axis that is exploited in the counter-exposition is D. The tonal relationships are alto, C; bass, D; soprano, F; and tenor, A. The bass and tenor parts conclude the counter-exposition with a statement of the subject in octaves on the tonal axis C. Thus it is apparent that the basic tonality for the first exposition and the counter-exposition is C.

No codettas are used in the counter-exposition.
Fig. 22. — Construction of the fugue from the fifth movement of Hindemith's Sonata for Two Pianos Four Hands (1942).
D. Development of the First Subject

The first development section has three basic characteristics: first, the use of stretto; second, the absence of any episodes; and third, the use of the first subject in inversion.

Measures 49 through 51 of the first piano part exhibit the combination of the subject (in the lower staff) and the inverted subject (in the upper staff) in stretto.

Fig. 23.--Hindemith, Sonata for Two Pianos Four Hands, fifth movement, measures 49-51, first piano.

II. A. Second Subject

The second subject is first introduced in measure 58.

Range - Minor tenth (e - g⁻¹).

Length - Four measures and two beats.

Meter - 3/2.

Metronome Marking - = 100-108.

Rhythm - A notable characteristic of the melody is the use of syncopation. In measure 58 the subject begins on the
last half of the first beat and in measure 59 the accent is shifted to the second half of the first beat by the use of a tie. In measures 60 and 61 the use of half notes on the last half of the three initial beats bring the syncopic qualities of the subject into further prominence. The subject is concluded with two half notes on the first and second beats of measure 62, thereby terminating the syncopation.

B. Second Exposition

Length - The second exposition extends from measure 58 through measure 71.

The order of entry (soprano, alto, and tenor) is conventional. The bass maintains a pedal on octave $G_1$ and $G_2$.

The tonal relationship of the statements of the subject in the second exposition are soprano, $G$; alto, $d$; and tenor, $G$.

All the statements of the subject in the second exposition are strict for four and two-thirds measures.

The countersubject to the second subject is introduced in measure 88. Thus far in this study, this is the second instance in which Hindemith uses a countersubject (a countersubject is used in the Third Piano Sonata). However, the countersubject is not introduced in the exposition, as is common in the fugal writing of J. S. Bach, but in the development section. Fig. 24 illustrates the first combination

\[\text{Ibid.}\]
of the second subject, in the upper staff, and its counter-
subject, in the lower staff.

Fig. 24.--Hindemith, Sonata for Two Piano Four Hands
(1942), fifth movement, measures 88-92, first piano.

The remainder of the statements of the second theme are
coupled with this countersubject.

C. Development of the Second Subject

Measures 72 through 78 form an episode between the
second exposition and the first subject group in the second
development section. The musical material for this first
episode is derived from the first rhythmic pattern of the
subject (\( \text{\texttt{\textsl{\textcircled{\textbullet} \textbullet \textbullet}} \) ).

The first subject group, beginning with measure 79 and
extending through measure 87, is characterized by the use of
stretto.
III. Combination and Development of all Material

The first subject and its inversion and the second subject with its countersubject are combined in the section between measures 105 and 163.

Fig. 25 shows the close combination of the previously stated material. In the upper staff is found the second subject, accompanied by its countersubject in the lowest staff. The two inner staves show the combination of the inversion of the first subject in stretto.

Fig. 25.--Hindemith, Sonata for Two Pianos Four Hands (1942), fifth movement, measures 147-149.
IV. Recapitulation

The recapitulation, which begins with measure 170, is similar to the recapitulations in the Sonata for Viola and Piano, op. 10, No. 4, (1919), and the Third Sonata for Piano (1936), in that only the first part of the subject, or subject head, is used to announce the beginning of the recapitulation.

V. The Composition as a Whole

Length - One hundred and eighty-six measures.
Metric Changes - None.
Over-All Tonality - This fugue begins and concludes with the tonal axis C.

The Sonata for Two Pianos (1942) is composed of five movements (Chimes, Allegro, Canon, Recitative, and Fugue).

VI. Conclusions

The preceding study has endeavored to show the important features of style to be (1) the use of the fugue as the final movement of this Sonata (as found in the Second Sonata for Organ and the Third Sonata for Piano previously examined), (2) the introduction and development of each subject separately before a combination and development of both subjects, (3) the use of inversion and stretto as a means of development, (4) the introduction of a countersubject to the second not in the second exposition but in the course of the development of the second subject, (5) the use of pedal
point below the second exposition and finally, (6) the restatement of only the subject head in the recapitulation.

**Ludus Tonalis (1943)**

The *Ludus Tonalis* consists of twelve fugues, one in each key of the chromatic scale, connected by interludes. The entire work is preceded and followed by a Praeludium and a Postludium. The Postludium is the Praeludium inverted and in retrograde.

The study of the fugues of the *Ludus Tonalis* is presented in a somewhat different manner from the preceding studies. The author has felt that a presentation of an analysis of several fugues selected arbitrarily would be an inadequate treatment. On the other hand, a separate analysis of each fugue would increase the bulk of this work unnecessarily; this study of the *Ludus Tonalis* will reveal that many of the fugues have similar style characteristics and therefore can be treated collectively.

Because of their unusual construction, two fugues demand special attention. The fourth fugue is a double fugue. The two subjects of this fugue and their separate exposition and development sections are included with the analysis of the other fugues. The two upper voices of the eleventh fugue are in strict canon at the fifth. The bass voice is added primarily for harmonic purposes. This fugue has also been included in the analysis with the other fugues,
but because of its construction as a canon it does not have
the general style characteristics of the other fugues.

I. Subject

The range, tonal axis, length, meter, and metronome
marking for each fugue subject can be found in Table 1 and
Fig. 26.

<table>
<thead>
<tr>
<th>Fugue Number</th>
<th>Range</th>
<th>Tonal Axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minor seventh</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>Minor seventh</td>
<td>G</td>
</tr>
<tr>
<td>3</td>
<td>Minor seventh</td>
<td>F</td>
</tr>
<tr>
<td>4 (a)</td>
<td>Octave</td>
<td>A</td>
</tr>
<tr>
<td>4 (b)</td>
<td>Octave</td>
<td>C#</td>
</tr>
<tr>
<td>5</td>
<td>Minor tenth</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>Major sixth</td>
<td>Eb</td>
</tr>
<tr>
<td>7</td>
<td>Minor tenth</td>
<td>Ab</td>
</tr>
<tr>
<td>8</td>
<td>Major sixth</td>
<td>D</td>
</tr>
<tr>
<td>9</td>
<td>Major ninth</td>
<td>Bb</td>
</tr>
<tr>
<td>10</td>
<td>Octave</td>
<td>D</td>
</tr>
<tr>
<td>11</td>
<td>Octave</td>
<td>B</td>
</tr>
<tr>
<td>12</td>
<td>Minor ninth</td>
<td>F#</td>
</tr>
</tbody>
</table>

Fig. 26 shows that the subject of the eighth fugue is
the shortest, with a length of only one and one-fourth
measures. The subject of the fifth fugue is the longest,
encircling seven and a half measures. The use of rhythmic
and melodic sequence is an outstanding feature of this fugue.
An inverse correlation exists between the lengths and ranges of the fifth and eighth fugue. The eighth fugue has the shortest subject and the smallest range. Conversely, the fifth fugue has the longest subject and the widest range.

The twelve fugue subjects exhibit unusual variety. The fugues up to this point reveal that Hindemith uses the fugue to express his more profound, if not somber, musical thoughts; however, the indication for the mood of the second fugue is marked "gay". Hindemith even goes so far as to mark the ninth fugue with the word "scherzando".

II. Exposition

The length of each exposition in the fugues of the Ludus Tonalis is given in Table 2.

<table>
<thead>
<tr>
<th>Fugue number</th>
<th>Length in measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>4 (a)</td>
<td>8</td>
</tr>
<tr>
<td>4 (b)</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 2 and Fig. 26 show that the length of the subject indicates the length of its respective exposition.

**TABLE 3**

RELATIONSHIP OF THE TONAL AXES, ORDER OF ENTRIES, AND THE USE OF STRICT OR FREE STATEMENTS OF THE SUBJECTS IN THE FUGUES OF THE *LUDUS TONALIS*

<table>
<thead>
<tr>
<th>Fugue Number</th>
<th>Order of Entry*</th>
<th>Tonal Axes</th>
<th>Strict or Free Statements of the Subject**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ASB</td>
<td>CFCDG</td>
<td>S S</td>
</tr>
<tr>
<td>2</td>
<td>BASBS</td>
<td>GFDCF</td>
<td>S S S S</td>
</tr>
<tr>
<td>3</td>
<td>SBA</td>
<td>FDF</td>
<td>FS</td>
</tr>
<tr>
<td>4 (a)</td>
<td>ASB</td>
<td>AC#A</td>
<td>SS</td>
</tr>
<tr>
<td>4 (b)</td>
<td>ASB</td>
<td>C#F#C#</td>
<td>SS</td>
</tr>
<tr>
<td>5</td>
<td>ASB</td>
<td>EAEB</td>
<td>FS</td>
</tr>
<tr>
<td>6</td>
<td>ASB</td>
<td>EbABEb</td>
<td>SS</td>
</tr>
<tr>
<td>7</td>
<td>SBA</td>
<td>A^bEb^bA^b</td>
<td>SS</td>
</tr>
<tr>
<td>8</td>
<td>ASB</td>
<td>DAD</td>
<td>SS</td>
</tr>
<tr>
<td>9</td>
<td>ASB</td>
<td>B^bF^bB^b</td>
<td>SS</td>
</tr>
<tr>
<td>10</td>
<td>ASB</td>
<td>D^bAbDb</td>
<td>SS</td>
</tr>
<tr>
<td>11</td>
<td>AS</td>
<td>B F^#</td>
<td>S</td>
</tr>
<tr>
<td>12</td>
<td>ASE</td>
<td>F^#B F^#</td>
<td>SS</td>
</tr>
</tbody>
</table>

*S-indicates soprano, A-alto, T-tenor, and B-bass.

**S indicates strict statement of the subject in the exposition, F indicates a free statement of the subject in the exposition. The listing indicates all statements after the initial statement.

Table 3 reveals that the order of entry alto, soprano, and bass is used nine times; soprano, bass, and alto is used twice; while the order of entry bass, alto, and soprano and alto and soprano are each used only once. Since all the fugues in the *Ludus Tonalis* are three voice fugues, it is
possible that Hindemith preferred the order of entry in which the alto voice is introduced first so that it is not overshadowed by an outer and consequently a more prominent voice. The alto voice also enjoys more freedom of range if it is introduced first because the entrance of another voice, either above or below, tends to confine its movement.

**TABLE 4**

A SUMMARY OF THE ORDER OF ENTRIES GIVEN IN TABLE 3

<table>
<thead>
<tr>
<th>Degree of the scale upon which each entry is made</th>
<th>1-5-1</th>
<th>1-4-1</th>
<th>1-4-5-4-1</th>
<th>1-6-1</th>
<th>1-3-1</th>
<th>1-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fugues using these orders of entry</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

All of the subjects used in the *Ludus Tonalis* follow:
Fig. 26.—Subjects of the fugues in the *Ludus Tonalis* showing length, meter, and metronome marking.
The predominant use of the second statement of the subject on the dominant and subdominant degrees of the scale and the return of the final statement to the tonal axis of the first is a clear indication of Hindemith's desire to establish a definite tonality in the exposition.

Another distinguishing feature of style revealed in Table 3 is Hindemith's preference for a strict rather than a free statement of the subject in the second and third entries of the exposition.

The rhythmic order of entry in the eighth fugue is noted here because of the unusual displacement of the first note of initial rhythmic stress.

Fig. 27.--Hindemith, *Ludus Tonalis* (1943), eighth fugue, measures 1-3.
In the first entry, the first accented note of the subject occurs on the first beat of the measure, in the second entry on the second beat of the second measure, and in the third entry on the third beat of the third measure. This displacement of the first accented note of the subject is a characteristic of the entire fugue.

Countersubjects are not used in the *Ludus Tonalis*.

The third, eighth, eleventh, and twelfth fugues have no codettas; however, all the remaining fugues use codettas, varying in length from one to three measures, as a means of modulation before the final entry in the beginning tonality.

III. Development

The three devices of imitation which characterize the development sections in the fugues of the *Ludus Tonalis* are those of inversion, retrograde, and stretto.

Inversions of the subject are used in the development sections of the fifth, ninth, tenth, and in the development of the first subject of the fourth fugue.

The development section of the tenth fugue utilizes the device of inversion to a greater extent than do the other three fugues mentioned above; in fact, the last half of the composition is an inversion of the first. Hindemith inverts not only each separate voice but their relationship as well. The alto voice acts as an axis upon which the first seventeen measures are turned until they are in effect up-side-down,
that is, the soprano states, in inversion, the part previously stated by the bass, and the bass follows the same procedure with the soprano part, while the alto restates its own part in inversion.

The use of the characteristic fugal device of stretto is employed by Hindemith in the second fugue. The innate rhythmic properties of the subject of the second fugue, created by the repetition of the first note, lends itself to this particular means of imitation.

![Fig. 28.—Hindemith, *Ludus Tonalis*, second fugue, measures 36-38.](image)

The construction of the third fugue deserves special attention to this part of the analysis, for in measure 30 of that fugue a complete retrograde begins so that each note previously stated is stated again in reverse order. To conclude the fugue with an exposition in reverse, however, would not be in the style of the fugue; consequently, Hindemith retains the three voice texture until the final note of the retrograde is obtained.
IV. Recapitulation

The point of principle importance, in reference to the recapitulations in the fugues of the Ludus Tonalis, is that, with the exception of the seventh fugue, all of the fugues begin and end in the same tonality. The first, seventh, and eighth fugues have a complete recapitulation of the subject by all three voices; the twelfth fugue is recapitulated with the statement of the subject by only two voices; and the second, fourth, fifth, sixth, ninth, and tenth recapitulate with the return of the subject in only one voice.

V. The Composition as a Whole

Examination of each fugue of the Ludus Tonalis discloses that metric changes are not used.

The tonal scheme of the fugues of the Ludus Tonalis is a point of vital concern in this thesis; however, before this aspect of the analysis can be undertaken a short explanation of Hindemith's concept of tonality is necessary.

In Book One of The Craft of Musical Composition, through investigation of the harmonic series, Hindemith sets forth a theory ranking all of the tones in the chromatic scale as follows:

The order in which the tones of the scale were produced by the progenitor tone is of the greatest importance, in the view which this book represents. It is not only an indication that the tones have a family relationship, expressed in their connections to the principal tone; it is also an index to the ranking of these connections.
To a given tone, the tone an octave higher stands in so close a relationship that one can hardly maintain a distinction between the two. The tone which is only a fifth higher than the given tone is the next most closely related, and there follow in order the fourth, and major sixth, the major third, the minor third, and so on. As the distance from the given tone increases in this series, the relationship diminishes, until, in the tones that stand at the interval of the augmented fourth or diminished fifth, it can hardly be felt at all. This value-order of the relationships is valid under all circumstances.  

This chromatic scale Hindemith calls Series One.

Fig. 29.—Hindemith's Series One.

What is the significance of Series One: Hindemith answers this question as follows:

The values of the relationships established in that series /Series One/ will be the basis for our understanding of the connection of tones and chords, the ordering of harmonic progressions, and accordingly the tonal progress of composition.  

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5P. Hindemith, The Craft of Musical Composition, p. 54.

The preceding quotation offered a hint, and subsequent analysis disclosed that the tonal structure of the entire \textit{Ludus Tonalis} is set up in terms of Series One. That is, the first fugue is in the tonality C, the second in G, and the succeeding fugues follow the order of Series One. The interludes act as modulatory links between the fugues, leading either directly into or preparing the tonality of the next fugue.

In the main, the fugues studied before those in the \textit{Ludus Tonalis} have shown that the melodic, rhythmic, and dynamic climax generally occur in the middle or development section of the fugue. And now the following conclusions drawn from a thesis in which each fugue of the \textit{Ludus Tonalis} was graphed in an effort to discover the degree of harmonic fluctuation within each fugue seems pertinent to this analysis.

The high point of the curve [a graphic curve showing a high point of harmonic tension] comes somewhere near the middle of the fugue, so that the fugue usually begins with a rise in total tension, reach a climax, and returns to consonance.\footnote{Harvey, Otis Poe, Jr., \textit{A Study of Dissonance and Harmonic in the Fugues of the Ludus Tonalis} by Paul Hindemith. It should be noted that this tension study was made by a method devised by Dr. Hugh M. Miller and contained in his report \textit{An Objective Method for the Study of Harmonic Tension}, N. Y., G. Schirmer, Inc., 1945.}
From these findings it may then generally be said that the highest point of interest dynamically, rhythmically, melodically, as well as harmonically, is obtained in the development section.

VI. Conclusions

The tonal structure of the *Ludus Tonalis* is the most outstanding feature of the composition. For by constructing the entire work on the tonal scheme of Series One Hindemith is testifying, by his best musical medium, to a principle that is to him at the foundation of all tonal organization. Why should Hindemith select preludes and fugues to exemplify this principle? The answer may possibly be found in the similarity between the *Ludus Tonalis* and the *Well Tempered Clavier*: for in composing the forty-eight preludes and fugues of that work Bach indicates his approval of the relatively new system of equal temperament.\(^8\) Similarly,

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\(^8\)W. Apel, *Harvard Dictionary*, pp. 735-736, equal temperament is usually said to have been invented by Andreas Werkmeister around 1700. This statement is not in accordance with the facts. The history of equal temperament can be traced back to 1518, when H. Grammateus recommended dividing the octave into 10 equal semitones and two of somewhat smaller size . . . Contrary to common belief, Werkmeister never stated equal temperament correctly. The introduction of equal temperament into musical practice was a very slow process. Whether Bach's famous collection of pieces in all the major and minor keys, the *Well Tempered Clavier* (1722), or its less complete predecessor, J. K. F. Fischer's *Ariandne Musica* (c. 1710), referred to equal temperament or merely to a sufficiently close approximation, is not entirely clear. At any rate, the system was not universally adopted in Germany until c. 1800, in France and England until c. 1850.
Hindemith's new system for tonal organization, that is Series One, first expressed in 1937 in The Craft of Musical Composition, evolves from theory to definite application with the publication in 1943 of the Ludus Tonalis.

Other important features of style derived from the study of the Ludus Tonalis are as follows: (1) the absence of countersubjects, (2) the obvious preference for a strict rather than a free statement of the subject in the exposition, (3) the use of the highest harmonic tension in the development section, (4) the use of retrograde, inversion, and stretto as means of development, and finally (5) the use of only three voices in each fugue to assure clarity and freedom of motion to each voice indicates a refinement of Hindemith's technique of fugal writing.

Fugue from the Fifth Movement of the Septet for Wind Instruments (1949)

I. A. First Subject

Range - Minor tenth (eb - Gb).  
Tonal Axis - Ab.  
Length - Six measures.  
Meter - 4  
Metronome Marking - $\text{= 80.}$

Rhythm - The first subject has two fundamental rhythmic figures. The first figure ( ) occurs three times
at the beginning of the subject with each figure overlapping the next so that the last note of the first figure becomes the first note of the next figure. The second rhythmic figure \( \begin{array}{c|c|c|c|c|c|c} \hline \text{r.}\! & \text{r.}\! & \text{r.}\! & \text{r.}\! & \text{r.}\! & \text{r.}\! & \text{r.}\! \\ \hline \end{array} \) occurs five times.

II. B. **Exposition and Development of the First Subject**

Length - Thirty-seven measures (measure 1 through 37).

The order of entry and tonal relationships in the first exposition are clarinet, \( \text{Ab} \); flute, \( \text{Eb} \); bassoon, \( \text{F} \); bass clarinet, \( \text{Bb} \); oboe, \( \text{Eb} \); and horn, \( \text{Eb} \).

The statements of the subject by the flute and bassoon are strict for five and a half measures. The statement of the subject by the oboe is strict for three and a half measures. The bassoon and horn entries are free.

No codettas are used in the first exposition.

The development section is very short and contains no episodes. Most of the statements of the subject are in stretto until measure 33 at which time all the instruments, except the trumpet, conclude the first exposition with a statement of the subject in octaves.

II. A. **Second Subject**

Range - Major third (\( \text{c}^1 - \text{a}^b \)).

Tonal Axis - \( \text{Ab} \).

Length - Three measures.

Meter - \( \frac{4}{4} \).

Metronome Marking - \( \text{d} = 80 \).
The second subject is composed of two rhythmic figures. The first \( \left( \frac{\text{\textbullet \textbullet \textbullet}}{\text{\textbullet \textbullet \textbullet}} \right) \) is used three times; while the second \( \left( \frac{\text{\textbullet \textbullet \textbullet}}{\text{\textbullet \textbullet \textbullet}} \right) \) is used only once.

B. **Exposition and Development of the Second Subject**

This section extends from measure 38 through measure 60. The order of entry and tonal relationships in the second exposition are clarinet, \( A^b \), oboe, \( F \); bassoon, \( D^b \); flute, \( A^b \); bass clarinet, \( D^b \); and horn, \( G \). The flute and clarinet enter together at measure 52.

The oboe and bassoon give a strict statement of the second subject. The remaining statements in the second exposition are free.

Short codettas are used between the first three entries.

Hindemith reserves the development of the second subject until later in the work. The few measures after the second exposition are used as a link to the next section rather than a section of development.

III. An interlude extending from measure 61 through measure 72 separates the second and third expositions.

IV. A. **Third Subject**

The third subject is constructed and used in a very free manner; because of this, the length, range, and tonal axis of the subject cannot be ascertained.

**Meter** - \( \frac{4}{\text{\textbullet \textbullet \textbullet}} \).
Metronome Marking - $\frac{4}{4} = 80$.  

Rhythm - The figure (,) is the basic rhythmic characteristic of the third subject.

B. Exposition and Development of the Third Subject  
This section extends from measure 73 through measure 102.

The order of entry is bassoon, clarinet, oboe, and flute. The development of the third subject begins at measure 81 without the bass clarinet and horn entries.

The two major devices of development are inversion and stretto.

The following figure illustrates the statements of the subject and its inversion in very close stretto by all the instruments except the trumpet.
Fig. 30.—Hindemith, Septet for Wind Instruments (1949), fifth movement, measures 93–94.

V. Composite Development of All Material

This section extends from measure 103 through measure 132.

This section contains the structural climax to the composition, combining all the thematic materials.
VI. For the final section of the Septet Hindemith brings back the material used in the interlude that separates the second and third expositions, but transposed one-half step lower.

VII. The Composition as a Whole

The fugue from Hindemith's Septet for Wind Instruments can be divided into six distinct sections.

<table>
<thead>
<tr>
<th>Section</th>
<th>Lengths of each section of the fugue from Hindemith's Septet for Wind Instruments (1949).</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>First Expos. and Dev. Section</td>
</tr>
<tr>
<td>II</td>
<td>Second Expos. and Dev. Section</td>
</tr>
<tr>
<td>III</td>
<td>Composite Expos. and Dev. Section</td>
</tr>
<tr>
<td>IV</td>
<td>Third Expos. and Dev. Section</td>
</tr>
<tr>
<td>V</td>
<td>Final Section</td>
</tr>
</tbody>
</table>

The construction of the fugue is rather clear cut in that Hindemith sees fit to introduce and develop, to an
extent, each subject separately and then put all the material together in section V.

At the beginning of the fifth movement along with the title "Fugue" the composer has also written Old Bern March. The melody from this March is played by the trumpet throughout the fugue, and is, in fact, the basis of the composition and therefore may be considered a cantus firmus.

The march melody can be divided, according to its use, into three parts as shown below:

From Sections I and V

\[\text{Image of sheet music for Section I and V}\]

From Sections II and V

\[\text{Image of sheet music for Section II and V}\]
From Sections III and VI

Fig. 32.--Hindemith, Septet for Wind Instruments (1949), fifth movement, Old Bern March.

The following table shows the relative proportion of metric changes:

TABLE 5

METRIC CHANGES IN THE SEPTET FOR WIND INSTRUMENTS (1949)

<table>
<thead>
<tr>
<th>Trumpet</th>
<th>Other Instruments</th>
<th>Number of Measures Using These Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{1}{2}$</td>
<td>$\frac{2}{3}$</td>
<td>3</td>
</tr>
<tr>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>2</td>
</tr>
<tr>
<td>$\frac{2}{2}$</td>
<td>$\frac{4}{4}$</td>
<td>138</td>
</tr>
<tr>
<td>$\frac{5}{4}$</td>
<td>$\frac{5}{4}$</td>
<td>2</td>
</tr>
</tbody>
</table>
VIII. Conclusions

By way of summary, the paramount characteristics of style in Hindemith's *Septet for Wind Instruments* (1949) are (1) the construction of a triple fugue upon a cantus firmus, (2) the introduction of each subject and the complete cantus firmus before a simultaneous development of all material, (3) the use of the interlude separating the first and second expositions, transposed one-half step lower, as the final section, (4) the use of stretto and inversion in the development sections, (5) and the continuation of the refinement of Hindemith's technique of fugal writing observed in the *Ludus Tonalis*.

The first eight and one-half measures of the *March* melody are used in the first exposition. The next four and one-half measures of the melody are used in the second exposition. Nine more measures complete the melody in the first interlude. The *March* melody is not used in the third exposition; however, the melody is stated in its entirety throughout the composite development section and the final section.

In addition to its use as a cantus firmus, the *Old Bern March* is significant for three other reasons: (1) it is played by the trumpet so that it can be easily discerned, (2) it is the only melody the trumpet plays, and (3) the trumpet is in counter rhythm with the other instruments.
This last observation can easily be seen at the beginning of the fugue where the other instruments have a quadruple-compound rhythm $\frac{4}{3}$, while the trumpet has a duple-simple rhythm $\frac{2}{2}$.

Metric changes are used, but not extensively. They are generally used near the beginning or the end of a section.
CHAPTER VI

A COMPARISON OF THE FUGAL WRITING
OF BACH AND HINDEMITH

The definitions of fugal terms given below are extracted from books and articles which are based, for the most part, on the fugal writing of J. S. Bach. Comments following each definition summarize the results of the analyses made in Chapters III, IV, and V and provide the basis for the comparison of the fugal writing of Bach and Hindemith.

Fugue -- The most highly developed form of contrapuntal imitation, based on the principle of the equality of the parts, a theme proposed by one part being taken up successively by all particular parts, thus bring each in turn into special prominence. The word fugue is presumably derived from the Latin fuga, a flight, which aptly characterizes the chasing and changing of the subject through the several parts.\(^1\)

Hindemith maintains independence of parts as well as the use of one musical thought as the basis of the composition. It should be noted that the fugues extracted from cyclic works (all of which are found in the last period) are used as the final movement.

Double Fugue -- Some theorists speak of a fugue in which the subject is regularly accompanied by the same countersubject as a 'double fugue'. If, however, we adopt this nomenclature, we have no means of

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\(^1\) T. Baker, Dictionary of Musical Terms, p. 79.
distinguishing between fugues with one subject and fugues with two or more. It is very much better and clearer to restrict the name double fugue to two classes of fugue now to be described: - First, those in which the two subjects are announced simultaneously; and, second, those in which each subject has a separate and complete exposition before the two are heard in combination.  

Two fugues, one from the Sonata for Two Pianos Four Hands (For analysis see pp. 43-51) and the other the fourth fugue from the Ludus Tonalis, have been considered in this study as double fugues. In both of these fugues the two subjects were announced with a separate exposition for each subject before they were combined.

Triple Fugue -- A triple fugue is based upon three different coordinate themes, which appear together, as a threefold subject, during some portion of the composition.

The Septet for Wind Instruments was the only triple fugue studied; in that work each subject had a separate exposition before a combination of all thematic material in the development section. It should be noted, however, that each exposition was less strict than the preceding one.

Fugetta -- A fugue of only small dimensions, and not developed at any great length.  

Trio II from Piano Music, Part Two Series of Small Pieces (see pp. 21-26) may be considered a fugetta. Although entitled "Trio", it fulfills the Prout definition of fugetta. It is the only fugetta found in the works studied.

2E. Prout, Fugue, p. 182.  
3Ibid., p. 5.
Fugato -- ('fugued') A term used to describe passages (or movements) in free composition in which the style of a fugal exposition is suggested as regards the successive entry of parts in imitation, but in which the strict laws as to the intervals of reply are not of necessity observed.4

The fugal passages from the First String Quartet (see pp. 5-10) and the Concert Music for Strings, Brass, and Two Harps (see pp. 27-31), as well as the fugatos from the Sonata for Violin and Piano (see pp. 10-15) and the Third String Quartet (see pp. 15-20) conform to this definition.

Design of a Fugue -- A fugue is frequently divided for the purpose of analysis in three parts, viz: (1) the Exposition, (2) the Middle section, and (3) the Final section. It must be said, though, that this division of the latter part of a fugue into Middle and Final sections is in many cases impossible, as there is often little or nothing that in any way indicates such as is implied thereby. In many of the fugues of Bach this is notably the case.5

The study of each fugal work has been divided into three parts, when this division seemed useful, in order to facilitate the closer examination of each individual part.

Exposition -- This part of the fugue extends normally to the point at which all the voices for which the fugue is written have entered once, and comprises, therefore, the statement of the Subject and Answer. The Subject, announced by the first voice--almost without exception in the key of the Tonic--is at once succeeded by the Answer, given out by the second voice, in the key of the Dominant. The third voice then enters with the Subject in its original key, the fourth (if the fugue is written for four voices) having

4S. Macpherson, Form in Music, p. 214.

5 Ibid., p. 205.
the Answer again, in the Dominant. If more voices are concerned, they continue on the same principle of alternation between Subject and Answer, and Tonic and Dominant.6

This general definition has, of course, exceptions even in Bach's fugal writing; however, the intervallic relationship between the subject and answer, that is, a fifth above or a fourth below, can be said to be a style characteristic of the expositions in Bach's fugal writing. A tabulation of the twenty-three expositions and counter-expositions studied in this thesis reveal that only nine expositions have the second statement on the dominant axis and that only half of the expositions have the third statement on the tonic axis. Hindemith's expositions are, in the main, composed of strict statements of the subject transposed to various tonal axes and although each exposition has an individual tonal scheme, there is, in so far as this analysis can determine, no set scheme of tonal axes that is characteristic of a majority of the expositions studied. While the connotation of the term "answer" is clear and useful when applied to the fugal writing of J. S. Bach, it is misleading and ineffectual when applied to the fugal writing of Paul Hindemith.

Counter-Exposition -- The close of the first episode is sometimes, though not always, followed by what is called a Counter-Exposition. This is a second exposition in the same two keys as the first, but with this difference, that the voices which before had the subject now usually have the answer, and vice versa.

6Ibid., pp. 205-206.
Sometimes the counter-exposition precedes the first episode, and follows the exposition immediately. Very frequently also it is only partial; that is to say, only some of the voices and not all, take part in it.7

As previously stated, Hindemith does not restrict himself to any set group of tonal axes in the exposition; neither does he do so in the counter-exposition. Counter-expositions are used in the *Concert Music for Strings, Brass, and Two Harps* (see pp. 28-29) and in the *Sonata for Two Pianos Four Hands* (see pp. 44-45). In the first, the counter-exposition and the exposition have the same order of entry, while in the second, they are different. Both counter-expositions have a complete return of all voices.

**Middle Section** -- When the exposition and counter-exposition are over, there begins what is known as a Middle section of the fugue. This consists of a contrapuntal web gradually leading through some definite scheme of modulation to the Final section . . . . The contrapuntal web consists of a series of episodes interspersed with entries of the subject in various new situations and guises.8

In general the middle or development section of a fugal work by Hindemith is the high point, melodically, rhythmically, harmonically, and dynamically. Also the use of stretto and melodic inversion are characteristic devices of imitation found in this section.

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7Prout, *op. cit.*, p. 3.

Final Section -- This section (when it is possible to mark it off as a separate portion of the fugue) is usually signalized by an entry (or entries) of the Subject or Answer in the tonic key.  

In the third period one characteristic that is found almost without exception is the return of the tonality to that set forth in the exposition. The use of pedal point is usually reserved for this section.

Subject -- The Principal theme, or phrase, on which a composition or a movement is based.

An examination of twenty-five fugal subjects studied in this analysis reveals that (1) the tonal axis of the fugue subjects in the second and third periods can be more easily determined than those in the first, (2) the subject of a fugal work is generally constructed from one or two rhythmic germs or figures, (3) the average length of a subject is three measures and (4) the average range is a seventh.

Answer -- The answer is a simple transposition of the subject into the key of the fifth above, or fourth below. If the answer is a strict transposition of the subject it is a real answer. When it becomes necessary to alter one or more of the notes in the answer, in order to preserve the due relation of tonic and dominant, the answer is tonal.

This term has not been used in this study. (See Exposition).

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11 J. Higgs, Fugue, p. 12.
Countersubject -- While the second voice announces the answer, the first voice goes on its way in counterpoint with it. Sometimes this counterpoint takes the shape of a definite theme of which further use is made in the course of the fugue; it is then called a 'countersubject'. The countersubject is usually in double counterpoint with the subject, designed, that is, to appear either above or below it as occasion requires.\textsuperscript{12}

In order for this definition to apply to a fugal work by Hindemith, one definite modification must be made: the countersubject need not be introduced in the exposition. Hindemith uses a countersubject in the Third Sonata for Piano (see p. 34) and the Sonata for Two Pianos Four Hands (see pp. 47-48), and in both cases the countersubject is introduced in the development section.

Codetta -- A link between two successive entries of Subject or Answer in the course of the Exposition.\textsuperscript{13}

This term is used in this study to indicate the link between successive statements of the subject in the exposition. Hindemith maintains the fundamental use of the codetta as a means of modulation between the separate tonal axes used in the exposition.

Episode -- A passage introduced into a fugue for the purpose of affording relief from the continual repetition of the subject and opportunity for modulation. Episodes are usually constructed on fragments of the subject or countersubject in order not to disturb the character of the fugue.\textsuperscript{14}

\textsuperscript{12}Grove, \textit{op. cit.}, p. 323.


\textsuperscript{14}J. Anger, \textit{Form in Music}, p. 69.
Hindemith, in almost every instance, derives his episodic material from the subject or countersubject.

**Melodic Inversion** -- A melody (subject) is inverted by changing each ascending interval into the corresponding descending interval, and vice versa.\(^{15}\)

Hindemith makes frequent use of melodic inversion as a means of development. An outstanding example of this treatment can be found in the tenth fugue in the *Ludus Tonalis* (see pp. 58-59), for the last half of that fugue is an inversion of the first.

**Augmentation** -- Doubling (or increasing) the time-value of the notes of a theme or motive in imitative counterpoint.\(^{16}\)

The use of augmentation in the fugal writing of Hindemith is very rare. The second subject from the fourth fugue of the *Ludus Tonalis* is used in augmentation in the final development section.

**Diminution** -- The repetition or imitation of a theme in notes of smaller time value (1/2, 1/3, or 1/4 that of the original).\(^{17}\)

The use of diminution is also extremely rare in Hindemith's fugal writing.

**Retrograde** -- The term denotes the backward reading of a melody, i.e., beginning with the last note and ending with the first.\(^{18}\)

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\(^{16}\) Baker, *op. cit.* , p. 20.

\(^{17}\) Ibid., p. 58.

\(^{18}\) Apel, *op. cit.* , p. 639.
The use of retrograde seems to be a more current means of development as witnessed by the third fugue in the *Ludus Tonalis* (see p. 59), for in measure 30 of that fugue a complete retrograde begins so that each note previously stated is stated again in reverse order.

**Stretto** -- 'Narrow, draw together', a division of a fugue in which subject and answer follow each other in such close succession as to overlap.\(^\text{19}\)

The use of stretto is perhaps the most frequently encountered device of imitation in the fugal writing of Paul Hindemith.

**Pedal Point** -- Pedal point or, simply, pedal means a long-held note, normally in the bass, sounding against changing harmonies in the other parts.\(^\text{20}\)

Generally speaking, Hindemith's use of pedal point is infrequent and brief. Two notable exceptions, however, are found in the *Sonata for Two Pianos Four Hands* (see p. 45) in which the octave G\(_1\) and G\(_2\) is held for fourteen measures below the second exposition and in the *Second Sonata for Organ* (see pp. 41-42) in which pedals on the tonic and sub-dominant are found near the end of the work.

**Coda** -- A section of a composition which is added to the form proper as a conclusion. Practically all fugues close with a shorter or longer coda which is frequently based on a pedal point.\(^\text{21}\)

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\(^{19}\)Baker, op. cit., p. 188.


\(^{21}\)Ibid., p. 159.
The use of the coda, the material for which is usually derived from some fragment of the subject (usually the subject head), is characteristic of the fugal writing of Hindemith.
CHAPTER VII

CONCLUSIONS

The following conclusions are drawn from the comparison of the fugal writing of Bach and Hindemith made in Chapter VI.

I. Exposition

Hindemith does not confine himself to the traditional alternation of tonic and dominant harmony. The close relationship of subject and answer, a fifth above or a fourth below, is no longer maintained. The expansion of tonality has made possible new orders of entry. The traditional order of entry in the exposition dictated by the tonic-dominant tonal concept required a statement of the subject to be answered by an adjacent voice. In Hindemith's fugal writing any order of entry is possible. The expositions in Hindemith's fugal writing are usually composed of strict statements of the subject which do not exhibit any prevailing pattern relating these entries; that is, there is no order of entry characteristic of a majority of the fugal works studied.

Hindemith's use of the countersubject is rare, but when he does use one he prefers to introduce it in the development
section rather than in the exposition, as is characteristic of Bach's fugal writing.

A strong cadence is usually avoided at the conclusion of Hindemith's expositions; however, a return to the tonal axis of the first statement of the subject is a stylistic feature of that section in Hindemith's fugal works.

Although Hindemith does modify the traditional elements of the exposition indicated above, he does maintain the following characteristic elements of Bach's style of fugal writing: (1) the introduction of the first statement alone, (2) the independence of parts, (3) the use of the codetta as a means of modulation between statements of the subject, and (4) the use of one musical idea, introduced in the exposition, as the basis of the entire work.

II. Development

The development section usually forms the structural high point in a fugal work by Hindemith, for it is in this section that the melodic and dynamic climax are obtained. Also, the section of highest harmonic tension and rhythmic intensity is generally found in this section. Metric changes, superimposed meter, and syncopation add rhythmic intensity to many of the development sections studied.

The characteristic devices of imitation in Hindemith fugal writing are stretto, melodic inversion, and retrograde. Augmentation, diminution, and canonic imitation are rarely used.
Hindemith's episodes are usually constructed from some fragment of the subject.

III. Recapitulation

The typical feature of the section of recapitulation in Hindemith's fugal writing is the restatement of the subject by one or two voices upon the basic tonal axis set forth in the exposition. A complete restatement of the subject by all voices is seldom found.

The use of the pedal tone is infrequent. It is generally found in the recapitulation and used to strengthen a cadence.

The coda, another characteristic of Hindemith's fugal writing, is normally derived from some fragment of the subject.

IV. The Composition as a Whole

A shift has been noted in the position of the fugal work within a cyclic composition. All of the fugal works studied in the first and second periods are used in the earlier portions of the cyclic works; however, in the third period every fugal work studied was used as the last movement of a cyclic composition.

Hindemith's increased technical skill is particularly notable in the triple fugue from the Septet for Wind Instruments with its construction upon a cantus firmus.
Simplification of structure is seen in the *Ludus Tonalis*, for all twelve of the fugues from that work are constructed with only three voices.

This study of twenty-two fugal works by Hindemith reveals that the tonal axis for many of the subjects in the early works is difficult to determine because of the use of the tritone and the innate chromaticism of the subjects. In the third period, however, the tonality is usually clearly established from the beginning (1) by the use of the strong harmonic intervals of the fifth and fourth in the subject head, (2) by placing the tonic at or near the beginning of the subject, (3) by repetition of the tonic, and (4) by placing the tonic upon the strong beats of the measure.

A comparison of the structural elements of the fugal writing of Paul Hindemith and J. S. Bach reveals that the most significant difference between the two is Hindemith's broader tonal concept.
A CHRONOLOGICAL LIST OF THE PUBLISHED WORKS OF
PAUL HINDEMITH ACCORDING TO DATE
OF PUBLICATION
1917 to 1952

KEY TO PUBLISHERS

(B) Breitkopf and Härtel, Leipzig
(S) Schott and Co., Ltd., London
B. Schott's Söhne, Mainz

<table>
<thead>
<tr>
<th>Year</th>
<th>Work Description</th>
<th>Publishing Details</th>
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<tbody>
<tr>
<td>1917</td>
<td>Three Pieces, for cello and piano, Op. 8 (B)</td>
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<tr>
<td>1919</td>
<td>String Quartet in F minor, Op. 10 (S)*</td>
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<tr>
<td>1920</td>
<td>Sonata in E flat for violin and piano, Op. 11, No. 1 (S)</td>
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<td>1920</td>
<td>Sonata in D for violin and piano, Op. 11, No. 2 (S)</td>
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<tr>
<td>1921</td>
<td>Das Nusch-Nuschi, Op. 20—a play in one act for Burmese marionettes (S)</td>
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<td>1921</td>
<td>Mörder, Hoffnung der Frauen, Op. 12—opera in one act (S)</td>
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<td>1921</td>
<td>Sancta Susanna, Op. 21—opera in one act (S)</td>
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<td>1922</td>
<td>Chamber Music for small orchestra, Op. 24, No. 1 (S)</td>
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<td>1922</td>
<td>Chamber Music for five wind instruments, Op. 24, No. 2</td>
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<tr>
<td></td>
<td>(flute, oboe, clarinet, horn and bassoon) (S)</td>
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<tr>
<td>1922</td>
<td>Die Junge Magd, Op. 23, No. 2—six poems for alto voice</td>
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<td></td>
<td>with flute, clarinet and string quartet (S)</td>
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<tr>
<td>1922</td>
<td>Eight Songs for soprano with piano accompaniment, Op. 18 (S)</td>
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*Indicates works from which portions have been extracted for analysis in this study.
1922 Incidental Music to Tuttifantchen--Christmas fairy tale in three scenes (S)
1922 Sonata for cello and piano, Op. 11, No. 3 (S)
1922 Sonata for viola and piano, Op. 11, No. 4 (S)*
1922 String Quartet in G, Op. 16 (S)
1922 1922 Suite for piano, Op. 26 (S)
1923 Sonata for cello solo, Op. 25, No. 3 (S)
1923 Sonata for viola solo, Op. 11, No. 5 (S)
1923 Sonata for viola solo, Op. 25, No. 1 (S)
1923 String Quartet, Op. 22 (S)*
1924 Chamber Music No. 2 (Piano Concerto), Op. 36, No. 1, for piano obligato and twelve solo instruments (S)
1924 Das Marienleben, for soprano and piano, Op. 27 (S)
1924 Der Damon, Op. 28--dance pantomime (S)
1924 Sonatas for violin solo, Op. 31, Nos. 1 and 2 (S)
1924 String Quartet, Op. 32 (S)
1924 Trio for violin, viola and cello, Op. 34 (S)
1925 A Book of Part-Songs, Op. 33 (S)
1925 Chamber Music No. 3 (Cello Concerto), Op. 36, No. 2, for cello obligato and ten solo instruments (S)
1925 Chamber Music No. 4 (Violin Concerto), Op. 36, No. 3, for violin solo and chamber orchestra (S)
1925 Concerto for orchestra, Op. 38 (S)
1925 Die Serenaden, Op. 35--small cantata for soprano, oboe, viola and cello (S)
1925 Piano Music, Op. 37
   Part One: Three Etudes (S)
   Part Two: Series of small pieces (see 1927)
1926  **Cardillac**, Op. 39, -- opera in three acts (S)

1927  **Chamber Music No. 5 (Viola Concerto)**, Op. 36, No. 4,  
for viola and chamber orchestra (S)

1927  **Concert Music for wind instrument orchestra**, Op. 41 (S)

1927  **Educational Work for Instrumental Ensembles**, Op. 44 (S)  
No. 1:  **Nine Pieces for Beginners in the First Position**, for two violins, or two-part violin choir  
No. 2:  **Eight Canons for Moderately Advanced Players in the First Position**, for two violins, or two-part violin choir, with third violin or viola  
No. 3:  **Eight Pieces for Advanced Players in the First Position**, for two violins, viola and cello  
No. 4:  **Five Pieces for String Orchestra**, for Advanced Players in the First Position

1927  **Hin Und Zurück**, Op. 45a-- comedy sketch with music (S)

1927  **Music for String Orchestra, Flute and Oboe**,  
Op. 43, No. 1 (S)

1927  **Piano Music**, Op. 37  
Part Two:  **Series of small pieces** (S)*

1927  **Songs for Singing Groups**, Op. 43, No. 2-- four three-part songs (S)

1928  **Concerto for organ and chamber orchestra**, Op. 46,  
No. 2 (S)

1928  **Dance Pieces for piano**, Op. 19 (S)

1928  **Music to Sing and Play**, Op. 45--music for amateurs and music lovers (S)  
No. 1:  **Frau Musica**, for mixed voices, high and low, flute and strings (see also 1945)  
No. 2:  **Eight Canons for two voices and instruments**  
No. 3:  **Ein Jäger aus Kurpfalz**--music for strings and woodwinds

1929  **Lehrstück**, for two men's voices, narrator, chorus, orchestra, dancer, clowns and crowd (S)
1929 Neues vom Tage—a comedy opera in three parts (S)
1929 Sonata for viola d'amore and piano, Op. 25, No. 2 (S)
1929 Trio for viola, heckelphone and piano, Op. 47 (S)
1930 Chamber Music No. 6 (Concerto for viola d'amore and chamber orchestra, Op. 46, No. 1 (S)
1930 Choruses for men's voices, a cappella (S)
1930 Choruses for three-part boys' choir (S)
1930 Concert Music for piano, brass and two harps, Op. 49 (S)
1930 Concert Music for viola solo and orchestra, Op. 48 (S)
1930 Easy Five-Finger Pieces for piano, Op. 45, No. 4 (S)
1930 Let's Build A Town—play with music for children, with instrumental accompaniment (S)
1930 Overture with Concert Ending, from "Neues vom Tage" (S)
1931 Concert Music for string orchestra and brass, Op. 50 (S)
1931 Das Unaufhörliche (The Perpetual)—oratorio in three parts, for solo, mixed chorus, boys' chorus and orchestra (S)
1931 Music to Sing and Play, Op. 45—music for amateurs and music lovers
   No. 5: Martinslied, for unison chorus and instruments (S)
1932 Fourteen Easy Duets for two violins (S)
1932 Philharmonic Concert—variations for orchestra (S)
1932 Plöner Musiktag (S)
   A. Morning Music
   B. Dinner Music
   C. Cantata
   D. Evening Concert
1932 Two Duets for two violins (S)
1934 Mathis Der Maler (Matthias the Painter) -- opera in seven scenes (S)

1934 Symphony, Mathis Der Maler (S)

1934 Three Pieces for five instruments (clarinet, trumpet, violin, double bass and piano) (S)

1934 Trio No. 2 for violin, viola and cello (S)

1935 Violin Sonata in E (S)

1936 Three Sonatas for piano (S)*

1936 Trauermusik (Music of Mourning), for viola and string orchestra (S)

1937 Der Schwanendreher -- concerto for viola and small orchestra, based on traditional folk songs (S)

1937 Sonata for flute and piano (S)

1937 Sonata No. 1 for organ (S)

1937 Sonata No. 2 for organ (S)*

1937 Unterweisung im Tonsatz (S); translated by Arthur Mendel as The Craft of Musical Composition, Vol. I, 1942 (A)

1938 Nobilissima Visione, ballet (S)

1938 Symphonic Dances (S)

1938 Three Easy Pieces for cello and piano (S)

1939 Concerto for violin and orchestra (S)

1939 Quartet for clarinet, violin, cello and piano (S)

1939 Six Chansons, for mixed chorus a cappella (S)
   A Swan
   In Winter
   Orchard
   Since All is Passing
   Springtime
   The Doe

1939 Sonata for bassoon and piano (S)
1939  Sonata for oboe and piano (S)
1939  Sonata for viola and piano (S)
1939  Unterweisung im Tonsatz (S); translated by Otto Ortman as The Craft of Musical Composition, Vol. II, 1941 (A)
1940  Concerto for cello and orchestra (A)
1940  Sonata for clarinet and piano (S)
1940  Sonata for harp (S)
1940  Sonata for horn and piano (S)
1940  Sonata for piano 4 hands (S)
1940  Sonata for trumpet and piano (S)
1940  Sonata in G for violin and piano (S)
1940  Sonata No. 3 for organ (A)
1941  A Song of Music, for women's chorus with piano accompaniment (A)
1941  Symphony in E flat (A)
1941  The Harp That Once Through Tara's Halls, for mixed chorus with piano accompaniment (A)
1942  Sonata for English horn and piano (A)
1942  Sonata for trombone and piano (A)
1942  Sonata for two pianos 4 hands (A*)
1943  Five Songs on Old Texts, for mixed chorus a cappella (A)
1943  Ludus Tonalis, for piano (A)
1943  Traditional Harmony (A)
1944 Cupid and Psyche, overture—for orchestra (A)

1944 Echo, for flute and piano (A)

1944 Herodiade, for chamber orchestra—based on the poem by Stephane Mallarme (A)

1944 Nine English Songs, for high or medium voice and piano
   Echo (Thomas Moore)
   Envoy (Francis Thompson)
   On a Fly Drinking Out of His Cup (William Oldys)
   On Hearing "The Last Rose of Summer" (Charles Wolfe)
   Sing on there in the Swamp (Whitman)
   The Moon (Shelley)
   The Whistlin' Thief (Samuel Lover)
   The Wild Flower's Song (William Blake)
   To Music, to BecaIm his Fever (Robert Herrick)

1944 String Quartet in Eb (A)

1945 In Praise of Music (Frau Musica), for mixed voices, high and low, and strings—thoroughly revised by the composer (see also 1928) (A)

1945 La Belle Dame Sans Merci (John Keats), for high or medium voice and piano (A)

1945 Symphonic Metamorphosis on Themes by Carl Maria von Weber (A)

1946 Bal Des Pendus (Jean-Arthur Rimbaud), for high or medium voice and piano (A)

1946 Concerto for Piano and Orchestra (A)

1946 Elementary Training for Musicians (A)

1946 Le Revenant (Charles Baudelaire), for medium voice and piano (A)

1946 String Quartet (1945)

1946 Theme with Four Variations (The Four Temperaments), for piano and strings (A)

1946 When Lilacs Last in the Dooryard Bloom'd, an American Requiem (Walt Whitman), for chorus and orchestra (A)
1946  Sinfonia Serena \( (A) \)
1947  Apparebit Repentina Dies for SATB and ten brass instruments \( (A) \)
1947  Concerto for Clarinet in A and Orchestra \( (A) \)
1948  Sonata for Cello and Piano \( (A) \)
1949  Concerto for Woodwinds, Harp, and Orchestra \( (A) \)
1949  Concerto for Horn and Orchestra \( (A) \)
1949  Sonata for String Bass and Piano \( (A) \)
1949  Septet for Wind Instruments (flute, oboe, clarinet, brass clarinet, horn, and trumpet) \( (A)* \)
1949  Aufgaben Für Harmonieschüler, Vol. II \( (S) \)\(^1\)
1949  Sinfonietta in E \( (A) \)
1950  Symphonie in E \( (A) \)
1951  Symphony in E\(^b\) for Symphonic Band \( (A) \)
1952  A Frog He Went A-Courting (variations), for cello and piano \( (A) \)
1952  A Composers World - A collection of lectures delivered at Harvard University in 1949-50 and printed by the Harvard University Press

In preparation - Symphony - "Harmonie der Welt" (A symphony drawn from a new unfinished opera based on the life of the Scientist, Kepler)

In preparation - Concerto for Trumpet, Bassoon, and String Orchestra

\(^1\)Not yet translated; Vol. I is the "Traditional Harmony", see above 1943.
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Books


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Fraser, Andrew Alastair, Essays in Music, London, Oxford University Press, 1930.


Thompson, Oscar, editor, Cyclopedia of Music and Musicians, New York, Dodd, Mead, and Co., 1946.


Articles


Unpublished Material
