THE FUGUE

The word FUGUE is derived from the Latin word FUGA which means flight. The successive entries of the voices and the interweaving of them give the impression of pursuit, thus accounting for the use of the word fugue (flight).

The fugue is a contrapuntal composition in two or more voices. The composition may be instrumental or vocal but the parts are always referred to as voices: Soprano, Alto, Tenor and Bass. In our musical demonstrations the soprano is played by the flute, the alto by the oboe, the tenor by the clarinet and the bass by the bassoon. In some cases we use the harpsichord. It is quite difficult to give a briefly phrased definition of the fugue. For this reason we have decided to begin with the description of the individual elements and by pointing out their purpose and function we shall discover step by step the whole structure of the fugue.

SUBJECT

The melodic idea of a fugue is called the SUBJECT, or (DUX) (Latin word meaning leader) or PROPOSTA (proposition in Italian). The subject of a fugue must have the following characteristics:

1. It must be distinctive enough to be recognized whenever it reappears.
2. It must not be too long so that it can be remembered in its entirety by the listener.
3. It can be as short as a figure consisting of a few notes (see musical example #22) or can be a longer contrapuntal melody.

We shall play some examples of subjects from the "Well-Tempered Clavier" by Johann Sebastian Bach. Here is the subject of the Fugue No. 1 in C major from Part I.

Music 1

This is a subject distinctive enough to be recognized; it is relatively short, short enough to be remembered. The same could be said about the next example. Here is the subject of the Fugue No. 2 in C minor from Part I of the "Well-Tempered Clavier".

Music 2

The subject of the Fugue in C# minor, No. 4 in Part I, is different although rhythmically not characteristic, it is distinctive melodically.

Music 3

And here is a subject using chromaticism as the characteristic distinction: Part I, Fugue No. 12 in F minor.

Music 4

The next musical example is a very powerful subject. Its strength is derived from the half-beat rest at the beginning of each measure.

Part I, Fugue No. 16 in G-minor.

Music 5

The subject of the Fugue No. 6 in D minor, in Part II, consists of two rhythmically contrasting sections.

Music 6

The next example, from the Fugue No. 10 in E minor, in Part I, is a subject comprising a steady flow of sixteenth notes.

Music 7

This busy succession of sixteenth notes, however, is actually an embellishment of the following melody.

Music 8

Each of the subjects in examples Nos. 1, 3, 4 and 7 consists of one unbroken melodic line. The subjects in examples Nos. 5 and 6 are clearly divided into two sections. Here is another example of a subject in two sections: Part I, Fugue No. 5 in D major.

Music 9

Some subjects consist of three sections, as, for example, the theme from the "Musical Offering" by Johann Sebastian Bach. The melody of the first section of the theme energetically rises from the tonic to the minor sixth and then abruptly falls to the leading tone.

Music 10

In the second section the melody slides downward four consecutive half tones.

Music 11

Section one and two have a contrasting melodic design, but rhythmically they are very similar, consisting mainly of half notes. Section three begins with a melodic design similar to that of the first two sections. However, its rhythm, introducing quarter and eighth notes, contrasts with that of the first two sections.

Music 12
Now we shall play the whole melodic line.

Music 13

Another example of a subject in three sections is the subject of the Fugue No. 16 in G minor, Part I of the "Well-Tempered Clavier".

Here is the first section.

Music 14

Now, the second section.

Music 15

And the third section.

Music 16

Let us now play the whole subject.

Music 17

Also in three sections is the subject of Fugue No. 21 in B flat major, in Part I. The distinctive element in this subject is the contrast of the rhythmic patterns in the three sections: First section - eighth notes only; second section - eighth and sixteenth notes; third section - sixteenth notes only.

Music 18

Band 1:

Subjects can be divided into three groups according to their over-all character:

ANDAMENTO (from Italian "andare" which means "to walk")

A subject which is relatively long and stresses the flowing of the melodic line is called "andamento." Here are two examples of "andamenti:"

The first is the subject of the Fugue in E minor from "eight Short Preludes and Fugues" for organ by J.S. Bach.

Music 19

The second example, from the same collection, is the subject of the A minor Fugue.

Music 20

SOGGETTO (Means in Italian subject or theme)

A soggetto is always shorter than andamento. Its main stress is on interesting melodic intervals and/or distinctive rhythmic patterns, qualities which make it most suitable for contrapuntal development in the course of the fugue. Our musical examples Nos. 1, 2 and 5 are such soggetto subjects. We repeat now example No. 5, the subject of Fugue No. 16 in G minor, Part I of the "Well-Tempered Clavier".

Music 21

ATTACCO (from "attaccare" which means in Italian "to unite" or "bind together")

An attacco is a subject which consists only of a short figure. It occurs mainly in the development section of a fugue as subordinate thematic element. Because of its fragmentary character it is not suitable as a subject for an entire fugue. Bach's Fugue No. 3 in C# major from Part I of the "Well Tempered Clavier", which uses the following attacco as subject:

Music 22 - is an exception.

Band 2: THE FORM OF THE FUGUE

The fugue consists of three sections:

1. The exposition.
2. The development.
3. The coda.

EXPOSITION

The exposition begins with the statement of the subject in one voice. At the end of this statement a second voice enters with a repetition of the subject transposed a fifth higher or a fourth lower. Harmonically, the first statement of the subject is in the tonic and the second statement is in the dominant. The second statement is called the ANSWER or CLOSER (meaning "companion" in Latin) or RISPOSTA (meaning "answer" in Italian).

Now we shall play a simple subject and its answer.

Music 23

The answer was the transposition of the subject one fifth higher. Now, the same subject with its answer one fourth lower.

Music 24

Some subjects modulate into the dominant key in order to prepare the entrance of the answer. Here is an example of a modulating subject:

Fugue No. 10 in E minor from Part I of the "Well-Tempered Clavier".

Music 25

But most subjects do not modulate. We shall play the subject of Fugue No. 13 in F# major, Part I; the flute plays the subject and the harpsichord accompaniment is added in order to demonstrate the non-modulating character of this subject.

We now play the subject with its chordal accompaniment and add to it the answer (also with accompaniment). The answer is an exact transposition of the subject a perfect fourth lower.

Music 27

The result is not a smooth continuing line. The transition from the F# major of the subject to the C# major of the answer is too abrupt. The added accompaniment stressed the abrupt change of keys.

The next example is the subject of the "Art of Fugue" by Bach followed by an exact transposition of the subject one fifth higher.

Music 28

Here again, the transition from the subject to the answer was abrupt. In the next example, we
demonstrate a smooth transition: Fugue No. 1 in C major, Part I, of the "Well-Tempered Clavier".

Music 29

And here is another example of smooth transition: Fugue No. 6 in D minor, Part I.

Music 30

Now we have to find out why certain subjects and their answers result in a smooth melodic line whereas others do not. The subjects with the abrupt answers, Music 27 and 28, contain the fifth of their respective keys at the beginning. The subject in number 37 begins with the fifth, C# in the key of F# major. In the subject from music example No. 28, the second tone, A, is the fifth of the key of D minor. The subject in music example No. 30 has no fifth in the initial section. In the subject from example No. 29, the tone G, which is the fifth in the key of C major, is a short, alternating tone without any harmonic weight.

From these observations, we can deduce the general rules:

1. A subject which does not contain the fifth of the key in its initial section is followed by an answer which is an exact transposition of the subject a fifth higher or a fourth lower. This answer is called "REAL ANSWER."

2. A subject which contains the fifth of the key in its initial section is followed by an answer which is a transposition of the subject a fifth higher or a fourth lower with certain melodic adjustments. This answer is called TONAL ANSWER.

In musical examples Nos. 27 and 28 the answers were real and therefore not correct. We deliberately changed Bach's original tonal answers into real answers for the purpose of demonstrating the necessity of melodic adjustment in answers of subjects containing the fifth at the beginning. Now we shall play the subject from our example 27 with its tonal answer as originally written by Bach.

Music 31

The subject from the preceding musical example is in F# major and begins with the critical fifth (C#). The answer, which is in the dominant key of C# major, should, therefore, begin with the fifth, G#, but it begins with the fourth of the C# major key, the tone F#, which is the first step of the tonic key of F#. Because of this alteration the answer is still actually in the tonic key when it enters.

Now we shall play the subject from example No. 28 with its correct tonal answer as originally written by Bach.

Music 32

Band 3: Counter-subject

In the preceding example when the answer, played by the flute, enters, the subject, played by the clarinet, continues with a new melody in counterpoint to the answer. This new melody is called COUNTER-SUBJECT.

Here is another subject followed by its answer and counter-subject, from Fugue No. 1 in C major, Part I, of the "Well-Tempered Clavier".

Music 33

Codetta

After the statement of the subject and the answer with its counter-subject, in a fugue with more than two voices, a third voice may enter immediately, restating the subject again in the tonic key but in a different octave. It is in the discretion of the composer to have the third voice enter immediately following the statement of the answer or to delay its entry. The short delaying section is actually a smooth prolongation of the preceding answer and counter-subject. It is called CODETTA (which means in Italian "little tail", diminution of CODA). In the next example we shall play the subject, and the answer with its counter-subject, followed by a codetta, from Fugue No. 5 in D major, Part I, of the "Well-Tempered Clavier".

Band 4: Third and fourth voice in the exposition.

In the exposition of a fugue with three or more voices, the third voice enters with the restatement of the subject in the tonic key. If the subject is a modulating one, the entrance of the third voice will create certain difficulties. Let us take a simple example of such a situation. We shall hear a subject which is in C major and modulates into its dominant, G major. The following answer is in G major and modulates into its dominant, D major.

Music 35

At the end of the answer we are in D major, and the third voice is supposed to enter in the key of C major. The solution of this situation can be achieved by the insertion of a short codetta which modulates from D major to C major.

Music 36

If we want to avoid the delayed entrance of the third voice, we must alter the melodic lines of the answer and counter-subject to prepare for the re-entry of the subject in the tonic key.

Music 37

In a fugue with four voices, the fourth voice is, again, the answer in the dominant key to the preceding subject in the tonic key (in the third voice). We shall now play a simplified version of an exposition of a fugue in four voices, illustrating only the successive entrances of the voices: Subject-Answer-Subject-Answer.

Music 38

Let us now analyze the first four thematic entrances in the exposition of Fugue No. 1 in C major, Part I, of the "Well-tempered Clavier." Here is the subject followed by the answer with its counter-subject. (See music example No. 33)

Music 39

The third voice should enter with the subject in the tonic key, but in this fugue the third entrance is in the dominant key again. Here is the entrance of the third voice, with its counter-subject.

Music 40
A comparison of the counter-subjects in musical examples Nos. 39 and 40 shows that they are different melodic designs.

The fourth entrance is not an answer in the dominant key, as expected in a regular exposition, but is a subject in the tonic key. The counter-subject (in Tenor) is again a new melodic line with no similarity to the preceding two counter-subjects.

Music 41

We found out that the four entrances did not follow the regular pattern of alternating tonic and dominant keys. All three counter-subjects were free melodic lines.

In the following two examples we shall demonstrate another approach to the handling of counter-subjects. First we shall play a subject followed by the answer and its counter-subject from Fugue No. 21 in B-flat major, Part I of the "Well-Tempered Clavier".

Music 42

Now we shall play (the entrance of the third voice) played by the harpsichord with its counter-subject played by the oboe.

Music 43

The counter-subjects in both preceding examples are identical, with the exception of the first few notes. This excerpt is from a tonal fugue (a fugue with tonal answer). This means that the answer is not an exact transposition of the subject. For this reason the accompanying counter-subject had to be altered too.

A counter-subject which is used constantly throughout a fugue has a greater thematic importance than a counter-subject which varies with each new entrance of the subject of answer.

(Side 2)

Order of voice entrances

The first statement of the subject may be made by any voice. The choice of voice for the subsequent entries should observe the following rule:

The entering voice must be an outside voice, top or bottom, and must never enter between two previous voices.

Here are six examples of sequences of voice entry in a fugue for three voices:

3. Tenor-Soprano-Alto.
5. Tenor-Alto-Soprano.

Combinations Nos. 1, 2, 4, and 5 are correct because the entering voices are always above or below the previous voices and never enter as middle voice. Combinations Nos. 3 and 6 are not correct because the third voice, in both cases the alto, enters between the soprano and tenor.

In a fugue for four voices the following seven sequences are correct:

3. Alto-Tenor-Basso-Soprano.
5. Tenor-Basso-Alto-Soprano.

Band 1: Counter-Exposition

In the exposition the voices normally enter in tonic-dominant sequence, that is, the first voice in the tonic, the second in the dominant, third voice in the tonic, fourth voice in the dominant, and so on. However, in many cases, this tonal pattern of voice entrances is changed as, for example, in Fugue No. 1 in C major, Part I, "Well-Tempered Clavier" by Bach. In this fugue, the alto begins in C; the second voice, the soprano, in G; the third voice, the tenor, follows in G; and the fourth voice, the bass, in C.

Ordinarily, in a fugue for four voices, the entrance of all four voices (in regular or irregular sequence of the tonic and dominant keys) constitutes the exposition, and the development then begins with statements of the thematic material in keys other than the tonic and dominant. However, there may be a deviation from this scheme. The composer may extend the exposition by adding more statements of the subject and answer in the tonic and dominant keys. Such an extension of the exposition is called COUNTER-EXPOSITION.

In the previously mentioned Fugue No. 1 in C major the four statements of the actual exposition are followed by the sequence of another four statements, which, all being in the tonic or dominant key, constitute the counter-exposition. First statement, alto in C; second statement, soprano in G; third statement, tenor in G; fourth statement, bass in C; fifth statement, soprano in C; sixth statement, tenor in G; seventh statement, alto in G; and eighth statement, bass in G.

We shall now play the eight thematic statements of the extended exposition of the Fugue No. 1 in C major, Part I, of the "Well-Tempered Clavier" by Bach, demonstrating two special features of the exposition:

The extension by a counter-exposition and the irregular sequence of the alternating "tonic-dominant keys."

Music 44

Band 2: Other Special Features of the Exposition

The Contrapunctus No. 5 in the "Art of the Fugue" by Bach begins with the following subject.

Music 45

The answer is the inversion form of the subject.

Music 46

A very unusual beginning of an exposition is found in the Contrapunctus No. 6 in the "Art of the Fugue". The bass starts with a subject which is identical with the answer of our preceding example.

Music 47
In the second measure of the subject the soprano enters with a rhythmically diminished (halved) and melodically-inverted version of the subject.

Music 48

In the second half of the third measure of the subject the alto enters with a rhythmically diminished (halved) but melodically identical (not inverted) version of the subject.

Music 49

Now we shall play these three statements as they enter in the fugue.

Music 50

This is an exceptionally irregular case of the exposition; the voices enter before the preceding statement is finished. This technique, not frequently used in the exposition, is called Stretto and will be explained in detail later. (See another another stretto in counter-exposition, musical example No. 44). Basically all three statements are melodically identical, but the second and third statements are varied by rhythmical diminution and the second statement also by melodic inversion. All three statements are in the same, tonic key of D minor.

Band 3: DEVELOPMENT

After the last statement of the subject in the exposition a short episode modulates away from the tonic-dominant keys used exclusively in the exposition. This modulating section forms a bridge between the exposition and development.

The development consists of numerous entries of the subject in various keys, alternating with episodes based on thematic material derived from the subject or freely invented. There are no strict rules for the composition of the development section. The composer must exploit the contrapuntal potentialities of the subject and achieve great variety within the organic unity of the fugue.

Some of the methods by which the subject may be altered to achieve melodic and rhythmic variety are: AUGMENTATION, DIMINUTION, INVERSION and "RETROGRADE MOTION." Structural variety can be achieved by the overlapping of the entrances of the subject (STRETTO) or by elimination of voices, so that, for example, in a fugue for four voices there may be sections containing only two or three voices. The most important element of variety in the development section of the fugue results from the extensive use of modulation.

We shall analyze in detail the development section from Fugue No. 6 in D minor, Part I of the "Well-Tempered Clavier". Since the development in a fugue is based on thematic material from the exposition, we shall proceed with the analysis from the very beginning of the fugue.

Here is the subject:

Music 51

It is a non-modulating subject which does not contain the fifth at the beginning; therefore, the answer is a real answer. We now play the subject followed by the answer with its counter-subject.

Music 52

The entrance of the third voice does not immediately follow the answer. A codetta of one measure (measure 5) links the answer with the subject stated by the third voice, the low voice, in the tonic key of D minor. The melodic material of the codetta is derived from the preceding answer and counter-subject. Here is the lower voice of the codetta, derived from the first measure of the counter-subject.

Music 53

Now, the upper voice of the codetta, derived from the second measure of the answer (or subject).

Music 54

We now play both voices of the codetta which modulates from the dominant key of the answer, A minor, to the tonic key of the following subject, D minor.

Music 55

In the next measure (measure 6) the third voice enters with the restatement of the subject in D minor. The counter-subject is actually identical with the counter-subject of the answer. Let us play first the counter-subject of the answer.

Music 56

Now we shall play the exact transposition of this counter-subject into D minor, the key in which the third voice restates the subject.

Music 57

This was an exact transposition, played by one instrument. In the fugue, however, this counter-subject is divided into two sections, the first of which is situated in the top voice (played in our demonstration by the flute) and the second is situated in the middle voice (played here by the clarinet) one octave lower than expected.

Music 58

In the second measure of the counter-subject the flute plays a third part, a half note G. We play now all three voices in measures 6 and 7.

Music 59

This is the end of the exposition. We shall play the entire exposition without interruption. (See in the script musical example No. 91, measure 1 to 7)

Music 60

The development begins in measure 8. The soprano starts with the subject on the dominant of D minor. The second part of the subject is chromatically altered (F flat and C#. See measures 8 and 9 in number 91)

Music 61

In measures 10 and 11, the melodic line of the soprano is extended by sequential repetition of the second and third beats of measure 9. See number 91, measures 9 to 12.

Music 62

The soprano in measures 8 to 11 is clearly derived from the subject; the bass is derived from
the counter-subject. Thus in measure 8 the bass is an exact repetition of the soprano counter-subject in measure 3. See number 91.

Music 63

In measure 9 the bass is a transposed and slightly varied repetition of the second part of the counter-subject in measure 4; and in measures 10 and 11 it is a sequentia extension of the second and third beats of the bass in measure 9. We shall now play the soprano and bass in measures 8 to 11. See number 91.

Music 64

The alto in this section is closely related to the subject. Now we shall hear the soprano and alto in measures 8 to 11. See number 91.

Music 65

And now all three voices in the same section.

Music 66

Measures 8 to 11 are the first four measures of the development and constitute an episode which modulates toward the key of B flat-major. It is a transitional section between the last statement of the subject in the exposition and the first clear statement of the subject in the development. We shall now play the exposition followed by the first four measures of the development. See number 91 in the script.

Music 67

Band 4:

Now we shall analyze the following five measures, Nos. 12 to 16. We start with the bass. In measure 12 the bass is a chromatically altered repetition of the second half of the subject in measure 2. In measure 13 it is an exact repetition of the counter-subject in measure 3. The bass in these two measures is one melodic phrase, combining the second half of the subject and the first half of the counter-subject into one melodic unit. If we look back to measure 5 we find that the two voices have the same relationship; the soprano is derived from the second part of the subject, and the alto is derived from the first part of the counter-subject. Let us listen to the bass in measures 12 and 13. See number 91 in the script.

Music 68

In measure 14 the bass plays the first measure of the subject transposed down one step. See No. 91 in the script.

Music 69

In measure 15 the second and third beats of the bass are an inversion of the second and third beats of the first measure of the subject. Measure 16 is a sequential repetition of measure 15. See No. 91 in the script.

Music 70

Now we shall play the bass line in measures 12 to 16 without interruption and concentrate on its melodic design derived from the subject and counter-subject. See No. 91 in the script.

Music 71

Now we analyze the alto in measures 12 to 16: It begins in measure 12 with an inversion of the first measure of the subject. In measure 13 it is a free contrapuntal design. Measures 14 and 15 bring in the whole subject inverted, the last two beats freely inverted because of the modulation in process. Measure 16 is a free sequential repetition of measure 15. Let us listen to the alto in measures 12 to 16. See No. 91 in the script.

Music 72

And now, here are both the bass and alto in measures 12 to 16. See No. 91 in the script.

Music 73

The third voice, the soprano, it starts in measure 12, with a B flat, (held for the entire measure), which is the concluding tone of the preceding sequence. In measures 13 and 14 the soprano brings in the first statement of the subject in the development. The chromatic alterations are necessitated by the harmonic structure: The harmonic function of measure 13 is that of a dominant seventh chord in D minor. For this reason the minor third of the original subject had to be raised to a major third (C). Now let us listen to measures 12, 13, and 14. See No. 91 in the script.

Music 74

In measures 15 and 16 the soprano is derived freely from the counter-subject. See No. 91 in the script.

Music 75

Now we shall play all three voices in measures 12 to 16. See No. 91 in the script.

Music 76

We now analyze measures 17 through 19. The bass starts with a statement of the subject in A minor. The chromatic alteration of the minor third (C natural) to a major third (C#) on the first beat of measure 18 is made for the same reason as the alteration of the soprano in measures 13 and 14. In measure 19, the bass is derived from the second half of the counter-subject. Let us listen to the bass line in measures 17 to 19. See No. 91 in the script.

Music 77

The alto rests in measure 17, and in measures 18 and 19 it states the subject. See No. 91 in the script.

Music 78

The first half of the alto statement of the subject overlaps the second half of the bass statement (Stretto). The alto statement is also chromatically altered, but the major third is in the first measure, and the minor third is in the second measure, in contrast to the bass line in which the minor third is in the first measure and the major third is in the second measure. Here are the bass and alto in measures 17 through 19. See No. 91 in the script.

Music 79