opening solo recitative is astonishingly included in more elaborate form in the orchestral tutti); as in Mozart's concertos, the striking modulation is reserved for the solo exposition. Once the sonata is conceived as a set of proportions regulating tensions (or large-scale dissonances) and their resolution, it is easy to see that the purely orchestral fugue in the last movement of the Ninth Symphony plays the role of a development section (as well as standing in the place of the traditional second tutti of a concerto). The recapitulation (or resolution), with its return of the tonic, is equally set into relief.

Over this enormous sonata concerto form, a four-movement grouping which has equal weight is superimposed. The opening expository movement leads to a B flat major scherzo in military style with Turkish music; a slow movement in G major introduces a new theme; and a finale begins with the triumphant combination of the two themes in double counterpoint. These groupings are not to be conceived as emphasized articulations, but as the result of pressures which give a more specifically classical shape to the variation form. About the shape itself there is no question: the proportions and the feeling for climax and expansion are solely those of the classical symphony, and even the use of the variation form itself fulfills the classical demand for a finale looser and more relaxed than a first movement. The ideals of the sonata style enabled Beethoven to endow a set of variations with the grandeur of a symphonic finale; until the Eroica, this form had been reserved for the lesser genres of the concerto and chamber music (lesser only on a scale of magnificence). The new principle can be felt already in the *Eroica* finale, but it is only in the Fantasy for Piano, Chorus, and Orchestra of 1808 that it became the principal shaping element.² With the Ninth Symphony, the variation set is completely transformed into the most massive of finales, one that is itself a four-movement work in miniature.

Beethoven's development of the fugue is best comprehended within the context of the transformation of the variation. The two fugal finales—the Great Fugue op. 133 (the last movement of the String Quartet op. 130) and the fugue of the Hammerklavier—are both conceived as a series of variations, each new treatment of the theme being given a new character. Like the last movement of the Ninth Symphony, they both have the harmonic tensions characteristic of sonata-allegro form, along with its sense of a return and extensive resolution. They both, too, impose upon this another structural idea of several movements: this is particularly evident in the Great Fugue, which

² The relation of the 'Choral Fantasy' to 'sonata-allegro' form was pointed out by Hans Keller in an article in *Score* (January, 1961).

¹ This superposition of sonata-allegro and four-movement form is one of the rare experiments of the last years of Beethoven's life to have a genuine repercussion in the more original work of the first Romantic generation. The Liszt sonata is an attempt to repeat this conception. In spite of the frequent vulgarity of both his taste and his inspiration, Liszt was surely the composer of his generation who best understood Beethoven.

has an introduction, Allegro, slow movement (in a new key), and Scherzo finale as almost completely separate divisions; but the D major section of the *Hammerklavier* Fugue also provides a perceptible sense of a slow movement before the stretto-finale.

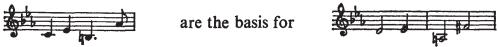
No one model, however, can exhaust the variety of ways in which Beethoven was able to integrate the fugue into a classical structure. The simplest and most Haydnesque device is the use of a fugue for a development section, as in the last movement of the Piano Sonata op. 101, and the first movement of the Hammerklavier. The Sonata op. 110 uses the inversion of the fugue and a stretto of augmentation and diminution as both development section and preparation of the return of the original theme and tonality; the fugal texture is dropped once the tonic is reached. Perhaps the most remarkable integrations of the fugue within a larger plan are in the Quartet in C sharp minor op. 131, and the Piano Sonata in C minor op. 111.

Both Haydn's E flat major Sonata H. 52 and Beethoven's C sharp minor Quartet op. 131 have second movements in the Neapolitan major—that is, a half step above the first movement. Both are prepared, but on different levels of power and effectiveness. Haydn's E major slow movement is prepared by an emphasis on that tonality in the development section of the E flat major first movement, and by allusions to E major harmonies in the narrative thread of the recapitulation. In Beethoven's quartet, however, the D major movement is prepared at once by the opening theme of the initial fugue with its sforzando on Aq: this dominant of the next movement is dramatized throughout the fugue, and, played over and over with the theme transposed so that the sforzando falls on a Dh, it is the fulcrum which bears all of the expressive weight, and the pivot upon which everything else turns. The texture is given a directional force in the classical sense, totally alien to Baroque fugal style. The change to D major at the beginning of the second movement, therefore, seems at once as inevitable as it is astonishing; where Haydn's relationship is only prepared by the working-out of the previous movement, Beethoven's is implied by the main theme of the opening fugue, and is already potentially in the stuff out of which the form is created.

In the C minor Piano Sonata op. 111, the combination of fugue and sonata form takes a form almost the opposite of Mozart's brilliant solution in his G major Quartet finale, which Beethoven imitated in the last movement of the Quartet op. 59 no. 3. In the two quartet finales, the fugal texture of the opening measures gradually turns into the more normal obbligato writing of the late eighteenth century, in which accompaniments have only a shadowy independence given by their thematic significance. The Allegro con brio ed appassionata of the Sonata op. 111 starts with what is evidently a fugue theme, but withholds fugal texture until a good part of the statement has already taken place. When it comes at last, the actual sonority of fugal writing provides the increased animation demanded by sonata style.

The development is largely a double fugue in which the second theme is an

augmentation of the first. The first four notes of the theme



in which, as so often, Beethoven is more interested in the shape of his theme than in the exact pitch relationship of the notes.

The first movement as a whole springs from the initial series of diminished seventh chords. The introduction has the following simple skeleton of three phrases:



The third diminished seventh is prolonged by a chromatic expansion over several measures before finding its resolution on an F minor chord (it is the length of this expansion and the consequent delay of the resolution that make the phrase spill over at once into the dominant of C minor). The main theme of the Allegro that follows is derived from these diminished sevenths and their resolutions:



although the melodic form is nowhere clarified in the introduction, which presents only the harmonic aspect (as the *Eroica* Variations begin with the bass alone). However, to make the derivation doubly clear, at the end of the movement Beethoven harmonizes the theme with the chords



where the diminished sevenths occur in the same order as in the introduction. This order of the chords also fixes the harmonic structure of the development section almost in its entirety:





The three chords and their resolutions provide a basis for this development, and the order of the chords is once again always that of the introduction. The expressive significance of these chords needs no comment; they color most of the piece, appear with extreme violence at every important climax, and supply the dynamic impulse for most of the harmonic transformations.

Most of Beethoven's works in C minor from the Sonate Pathétique on rely heavily upon diminished sevenths at climactic movements. Yet none before the Sonata op. 111 fixes an order for these chords so firmly throughout a movement (the three chords and their inversions exhaust the range of possible diminished sevenths), derives the principal melodic material so directly from their sonority, and makes such a consistent attempt to integrate the whole movement by their means. It is this concentration upon the simplest and most fundamental relationships of tonality that characterizes Beethoven's late style most profoundly. His art, with all its dramatic force and its conception in terms of dramatic action, became more and more an essentially meditative one.

The aspect of many of these late works is not ingratiating; to many, the Great Fugue is disagreeably harsh. But when it is played, as it should be, as the finale of the B flat Quartet op. 130, there is nothing eccentric in this harshness, or in the broken sobs (marked 'strangled') of the Cavatina that precedes it. What makes some of these works appear wilful is that they are uncompromising. This was understood during Beethoven's lifetime by E. T. A. Hoffmann. Against those who granted Beethoven only genius without control, imagination without order, he wrote:

But what if it were only your weak sight which misses the profound unity of inner relation [innere tiefe Zusammenhang] in each composition? If it were only your fault that the language of the master, understood by the consecrated, is incomprehensible, if the door to the holy of holies remains closed to you? In truth, the master, who is the peer of Haydn and Mozart in self-possession [Besonnenheit], carves his essential being [sein Ich] from the inner kingdom of tones, and reigns over it as its absolute ruler.

Since the Renaissance at least, the arts have been conceived as ways of exploring the universe, as complementary to the sciences. To a certain extent, they create their own fields of research; their universe is the language they have shaped, whose nature and limits they explore, and in exploring, transform. Beethoven is perhaps the first composer for whom this exploratory function of music took precedence over every other: pleasure, instruction, and, even, at times, expression. A work like the *Diabelli* Variations is above all a discovery of the nature of the simplest musical elements, an investigation of the language of classical tonality with all its implications for rhythm and texture as well as melody and harmony. There was no doubt an element of good fortune in his arriving on the scene to find a universe, a language already so rich in possibilities and resonances as the one formed by Haydn and Mozart. His singlemindedness, however, is unparalleled in the history of music, and it is this unrelenting high seriousness which can still create resentment.

Beethoven was the greatest master of musical time. In no other composer is the relation between intensity and duration so keenly observed; no one else understood so well, not even Handel or Stravinsky, the effect of simple reiteration, the power that can be drawn from repetition, the tension that can arise from delay. There are many works (the finale of the Eighth Symphony is only the most famous) in which an often-repeated detail becomes fully comprehensible only near the end of the piece, in which case we may quite literally speak of a logical tension that has been added to the familiar harmonic and rhythmic tensions of sonata form. Stravinsky once wrote that 'one misses in all so-called post-Webern music the tremendous leverage which Beethoven makes of time.' This mastery of time was dependent on a comprehension of the nature of musical action, or, rather, musical actions. A

musical event takes place on different levels; the fastest perpetuum mobile can appear immobile, and a long silence can be heard prestissimo. Beethoven never miscalculated the intensity of his musical actions, and the technique carried so far by Haydn and Mozart of endowing the proportions themselves with a weight both expressive and structural reaches the height of its development in Beethoven. The dissolution of classical articulation made its revival impossible.

The weight given within a work to duration alone (both of the whole and the parts) is by no means purely, or even principally, rhythmic in nature. Harmonic mass, the weight and scope of a line or of a phrase, thickness of texture—all these play roles equally influential. The fusion of these elements in Beethoven with a synthesis that not even Mozart knew¹ allowed him a command previously unknown over the largest forms. The slow movement of the op. 111 succeeds as almost no other work in suspending the passage of time at its climax. After almost a quarter of an hour of the purest C major, we reach what appears to be the cadential trill, and we must remember the temporal weight and mass of the preceding C major to understand the following:



¹ Tovey has remarked that Mozart is a more enchanting orchestrator than Beethoven because his greatest strokes stand out as such, whereas those in Beethoven's mature works seem inconceivable for any other instrumental pattern (nonsensical attempts to orchestrate the *Hammerklavier*, and the composer's financially motivated piano transcription of the Violin Concerto notwithstanding).



The only place in this movement where there is any harmonic motion is here, where the larger rhythmic motion is completely suspended: there is not the slightest directional force in these trills or in the modulation, and they are only a means of hovering before returning to C major and resolving the cadence. In the sense that a cadenza is a glorified cadence, this is a cadenza, and that is, in fact, its structural point. The mastery lies in Beethoven's understanding that a sequence does not move, that a diatonic circle of descending fifths within classical tonality does not exist on a plane of real action, so that the long series of tiny harmonic movements that prolong this immense inner expansion serve only as an harmonic pulse and in no sense as a gesture.

The trill is the culminating point in the rhythmic scheme of the movement. A long trill creates an insistent tension while remaining completely static; it helped Beethoven both to accept the static form of the variation set and to transcend it. The variation-set which proceeds by gradual acceleration—in which each successive variation is faster than the last—is common enough since the 16th century, but in no work before op. 111 are the gradations so carefully worked out. The sequence may be represented by the basic rhythm of each unit:

The fourth variation reaches almost undifferentiated pulsation, enforced by the continuous *pianissimo* and by the omission of the melody note from

the opening of every beat. The trill represents the complete dissolution of even this rhythmic articulation: the movement reaches the extremes of rapidity and of immobility. Its importance in the rhythmic structure of the movement as a whole accounts for the length of the trill and for its sonorous transformation into a triple trill. The trill returns on the last page, and the rhythm here is a synthesis of all that went before: the rhythmic accompaniment of Variation IV (the fastest measured motion) and the theme in its original form (the slowest) are both suspended under the unmeasured stillness of the trill. It is in this way that the most typical ornamental device is turned into an essential element of large-scale structure.

This power to suspend motion, seeming to stop the movement of time, which is measured only by action, is closely related to Mozart's exquisite feeling for a pause in harmonic movement before his recapitulations, but it became one of Beethoven's most personal traits. The development section of the first movement of the Quartet op. 130, with the continuous soft pulsation, the tiny ostinato theme, the long repeated lyrical phrase all combined into one, suspends motion in the same way as the quiet beginning of the development of the Ninth Symphony, with its syncopated and unaccented shifts of harmony that defer all sense of action: both build an intensity more terrifying and moving than any less inward motion could induce. With all their tension, these effects are essentially meditative in character, and they make one aware to what an extent the exploration of the tonal universe was an act of introspection.