

**AN ANALYSIS
OF BEETHOVEN'S PIANO SONATA, OP. 110**

by

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Beethoven's Piano Sonata, Op. 110 (1822) in A-flat major was his next to last piano sonata and exemplifies the experimental approach typical of his late period. This work includes forms which one might normally expect in a Beethoven sonata - specifically the sonata-allegro and minuet-and-trio forms - but he also introduces some unexpected forms. Borrowing from opera, he includes a recitative and arioso in the last movement. Also in the last movement, he includes two grand fugues, thus utilizing a form which was already considered rather old-fashioned by this time but to which Beethoven turned increasingly in his later years. (He also uses fugue within two of his other late piano sonatas, Opp. 101 and 106.) Furthermore, even within the more conventional forms of the first two movements, Beethoven finds ways of deviating from the expected. In the first movement, for example, after an unusually brief Development, the Recapitulation slips in almost unnoticed and then departs from usual key conventions.

The work consists of three movements. The first is a sonata-allegro form. The second is a scherzo, in minuet-and-trio form with Coda. The third movement can be seen as a ternary form, consisting of an Adagio introduction (culminating in the aforementioned recitative), an Arioso and Fuga pair, and a second, related Arioso and Fuga pair. It will be observed that there is no separate slow movement, although the slow-movement feeling is imparted by the Arioso sections of the final movement. Although this sonata has three separate movements, Beethoven downplays the breaks between movements by means of smooth modulations. He also brings unity to the whole sonata by means of "cyclic treatment" of his thematic material - that is, there are significant relationships among the thematic materials in the three movements.

This last device, which will be explored below, anticipates the practice of later nineteenth-century composers.

Analysis of the First Movement

The first movement, marked *Moderato cantabile*, is a sonata-allegro form. It has a Coda but no introduction. The material of the opening four bars might initially be mistaken for an introduction, especially considering its languid movement and the fermata near its close. But this material recurs beginning in bar 56, although with a varied accompaniment. Moreover, the latter point is clearly the beginning of the Recapitulation, since it marks the return to the home key of A-flat major, and also because the remaining themes of the Exposition follow in their proper order.

Within the Exposition, the second theme group is set off clearly by key, beginning at bar 20 in E-flat major (the dominant, as most expected). In retrospect, we can see that bars 1-11 constitute the first theme group (all in the tonic key), while the passage in thirty-second notes beginning at bar 12 is a transition. The first theme group includes two clearly different themes, one beginning in bar 1, and the other in bar 5. The second theme group includes three quite distinct themes (all in the dominant key), beginning at bar 20, at the pick-up to bar 24, and at bar 28. Finally, bars 34-39 clearly have the character of a closing theme.

The Development section (bars 40-55) is rather brief. It includes the rapidly modulating tonality characteristic of developments, moving in that brief span from F minor (the relative minor) to D-flat major, then to B-flat minor, before returning to the tonic A-flat major at the Recapitulation. This section is in fact a single sequence, utilizing essentially the same four-bar section (each section is actually a period of two phrases) at different pitch levels. The first of these sections (o1 in the accompanying form diagrams) is created by combining the right-hand

melodic material of the first theme of the first theme group with the left-hand accompaniment pattern of the second theme of that group. In sections o2, o3, and o4, the accompaniment pattern gives way to a single melodic line in running sixteenth notes.

There is therefore no retransition to the Recapitulation. In fact, Beethoven plays a deception on the listener here, because the opening phrase of the Recapitulation uses the same right-hand melodic material as the sequence of the Development, and furthermore is on the expected pitch level for a fifth iteration within that sequence. Here the left-hand accompaniment figure is based on the thirty-second note material of the transition, and this pattern also seems in context a mere outgrowth of the running sixteenth notes of the left hand in the Development (Beethoven accomplishes a smooth transition in bar 55). The illusion that we are still in the Development section is further enhanced by the unusual brevity of that section.

Also unanticipated is the appearance of the second theme in the first theme group in the subdominant (D-flat major, bar 63), rather than the tonic. After four bars, Beethoven then moves into the quite distant key of E major. The transition, which is similar in basic pattern but somewhat briefer than the transition in the Exposition, is now "circular" - that is, it remains in E major. The head of the first theme of the second theme group therefore appears (bar 76) two whole steps lower than one normally expects. After two bars, however, Beethoven abruptly breaks away from this "false entry" and modulates again, now into the "proper" key of A-flat major. The second theme group then restarts in its expected key, and the remainder of the Recapitulation follows a normal progression.

The Coda begins at bar 97, as can be seen by comparing the ends of the Exposition and Recapitulation. Its opening material, however, clearly derives from the closing theme which immediately preceded it; again, Beethoven seems to seek to disguise the sectional boundaries

of his sonata-allegro form. The middle section of the Coda (bars 105-110) is clearly based on the transition. The rather lyrical final section of the Coda (bars 111-116) utilizes motives taken both from the first theme of the first theme group (particularly as it appears in the Recapitulation), and from the flowing sixteenths which conclude the closing theme. The movement ends as quietly as it started.

Analysis of the Second Movement

The second movement is in F minor (the relative minor). Beethoven minimizes the break from the preceding movement: the first two pitches in the right hand match closing pitches of the first movement, and the opening dynamic is still *piano*.

This movement, marked *Allegro molto*, is a scherzo in minuet-and trio form with Coda. Using duple meter and violent dynamic contrasts, it is, of course, not an actual minuet. The **A1** section is a simple open binary form, with both parts repeated (as is customary). In the second part of this binary form, however, the repeat signs and alternate endings are arranged so that the repeat of this part begins with a syncopation, which Beethoven emphasizes with a *sforzando* marking and which contributes to the *scherzando* character of the movement. Section **A1** is asymmetrical: its second part of is considerably longer than its first.

Syncopated, accented entry also characterizes the phrases of the Trio section (**B**, which begins at the pick-up to bar 41, following the bar numbering of the Tovey edition). Whereas quarter-note rhythmic flow predominated in the **A1** section, the Trio section uses a more rapid eighth-note flow: the Trio is also in the contrasting key of D-flat major. This section divides into three periods. Each of the first two periods consists of two eight-bar phrases. The third period is somewhat similar, but with two irregularities. First, Beethoven inserts a "false beginning"

(beginning at the pick-up to bar 73) to the first phrase, which is abandoned almost immediately. By this device he introduces an asymmetry into the phrasing which contributes further to the *scherzando* feeling of this movement. Secondly, the second phrase is extended by four bars to create a smooth continuation into the **A2** section.

Section **A2** is almost identical to the **A1** section. The only difference is that Beethoven now writes out the repeat of the first part of section **A2** in order to introduce a *ritardando* near the beginning of its second iteration.

The Coda is a simple sequence of chords which provides a transition to the following movement in two ways. First, the pace is decreased. Secondly, the final four bars are F major rather than F minor harmony (using Picardy thirds). This final chord, which ends with a fermata, therefore serves as a dominant chord which leads into the tonic B-flat minor chord which opens the third movement.

Analysis of the Third Movement

The third movement is a highly original form, reflecting the personality of the composer, which can be divided into three parts: an Adagio Introduction, followed by an Arioso and Fuga which form a pair, and ending with another Arioso and Fuga which are also paired together. The terms "Arioso" and "Fuga" are provided by the composer himself. That each Arioso is paired with the following fugue is clear from the key relationships: in each case, the Arioso is in a minor key, while the fugue is in the parallel major (although the second fugue eventually modulates to A-flat major, the overall key of the sonata). Moreover, the second Arioso is a variation on the first Arioso. The two fugues are also closely related by subject, but it would not be correct to regard the second fugue as a variation on the first (since their specific procedures

are rather different), so they have been assigned different letters in the accompanying form diagrams.

The Introduction divides into two parts: The first three bars, slow and rather solemn, perform a quasi-improvisatory modulation from B-flat minor to C-flat major and then to A-flat minor. There follows a passage labelled "Recitativo" by Beethoven (cf. the recitative near the beginning of the last movement of the Ninth symphony, which occurs at a similar structural point). This passage imitates the halting rhythm, monodic texture, and modulations (alluding briefly to the distant key of E major) of early operatic recitative. It ends with the "8-5" figure which conventionally terminates an operatic recitative and introduces the following aria (bars 6 through 1, following the Tovey edition, which renumbers at this point):



The cliché "5-1" response in the operatic accompaniment is also suggested in the chords following in bars 1-2.

The Arioso, in A-flat minor, presents a *bel canto* melody of two periods. The second phrase of the first period cadences in the relative major (C-flat major, bar 10), but the first phrase of the second period returns to A-flat minor. A cadential extension to the second phrase of the second period (bars 19-20) anticipates the melodic shape of the following fugue subject.

The first fugue, in a joyful 6 / 8 meter, uses three voices (soprano, alto, and bass). The subject is introduced by the bass (pick-up to bar 21):



The Answer (real rather than tonal) is in the alto (pick-up to bar 25):



This answer is accompanied by a countersubject (bars 25-27), of which Beethoven will make significant use in the central portion of this fugue:



After a brief (two-bar) codetta, the soprano enters with the subject (pick-up to bar 31).

Beethoven then rounds off the exposition of this fugue, using materials from the codetta and from loose imitation of the countersubject, and concluding with a strong half cadence (bar 39).

The central portion begins with a *forte* restatement of the subject on the dominant in octaves by the bass, accompanied by the countersubject in the soprano. After a brief episode, this is answered by the subject on the tonic in the alto, accompanied by the countersubject in parallel sixths in the soprano and bass. A longer episode follows, within which Beethoven uses a false entry of the subject (bars 67 ff. in this bass), as well as a slight variation on the countersubject which occurs three times (e. g., bars 68 ff. in the soprano, indicated by **CS'** in the form diagrams).

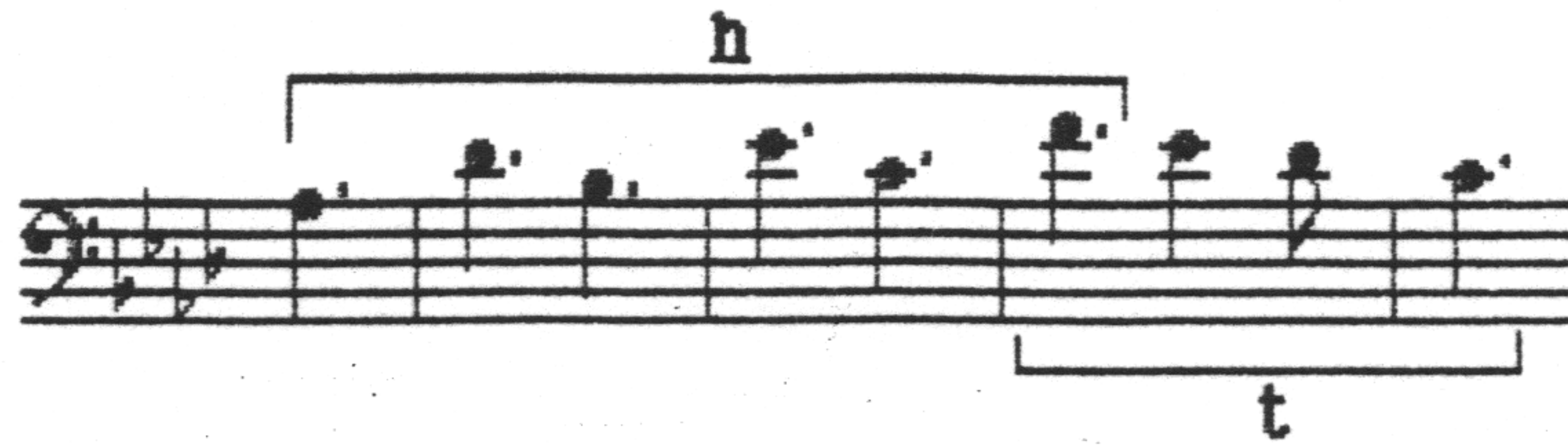
This episode cadences in D-flat major (the subdominant), where it is followed by another restatement of the subject (pick-up to bar 82 in the alto, answered by the soprano at the pick-up to bar 88). Returning to the key of A-flat major, the next episode concludes with a dramatic pedal point in the bass on the dominant (bars 92-95). The final restatement of the subject is also in the bass (pick-up to bar 96), answered by false entries of the subject in the alto and then the soprano, and cadencing on a *fortissimo* dominant chord.

against the inverted subject in augmentation in the soprano. The inverted augmented subject then is answered in the bass, against incomplete subjects (false entries) in inversion and diminution in the soprano and alto. The two subjects in diminution then undergo a process best described as "fragmentation" as they are broken down into their component motives. The opening descent of a fourth in the subject is contrasted with the opening ascent of a fourth in the inverted subject (bars 160-162). The last portion of the inverted subject in diminution then becomes a kind of accompaniment pattern to the subject in the alto (the latter in its original rhythmic values, but with intervals slightly altered).

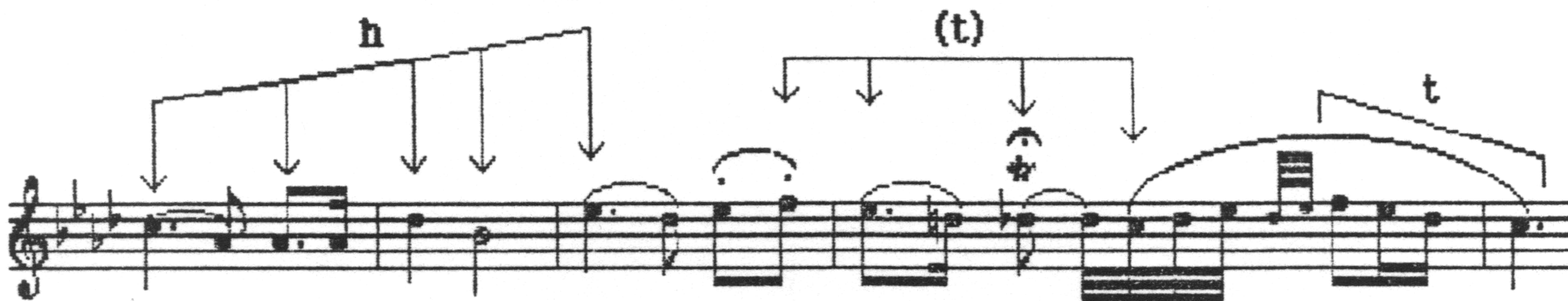
At the end of this highly complex passage the inverted subject emerges triumphant in A-flat major (pick-up to bar 169). The texture of the final section is now more homophonic than contrapuntal, inasmuch as the fragmented subject in diminution has been reduced into a pianistic accompanimental pattern of running sixteenth notes. The inverted subject is restated three more times: in the bass starting on the tonic (pick-up to 169), in the alto on the dominant (pick-up to 173), and in the soprano on the tonic (pick-up to 179). The final Coda uses motives from the codetta of the earlier fugue as well as a false entry of the inverted subject. It ends with a five-bar *fortissimo* A-flat major arpeggio and chord.

Thematic Relationships among the Movements

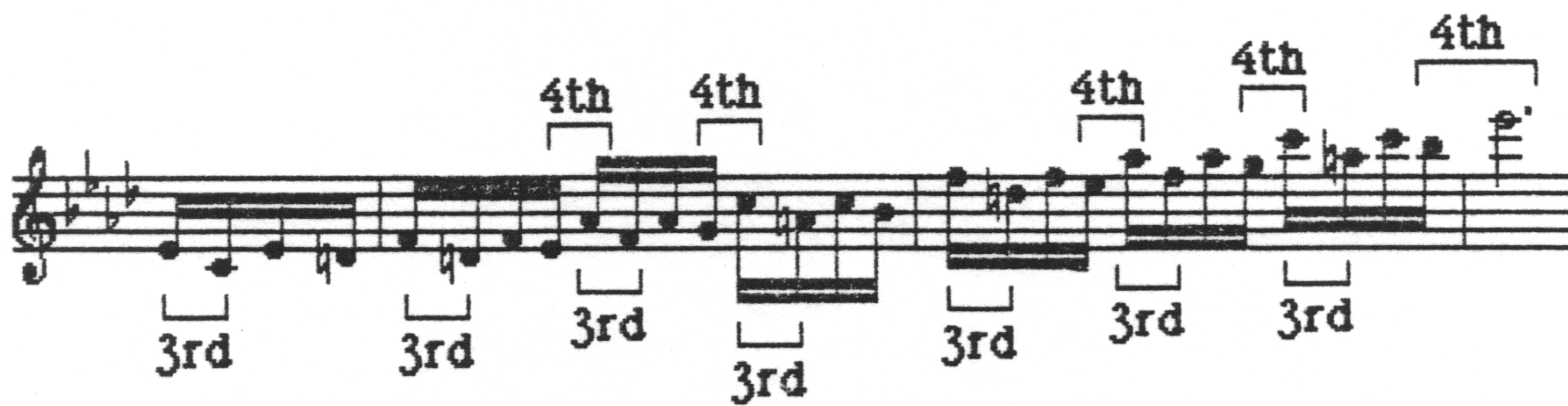
The thematic parallels among the three movements are striking. The subject of the first fugue, which also reigns supreme at the end of the second fugue, is clearly the dramatic focal point of the whole sonata. One is therefore not surprised to find that this subject also serves as the clearest statement of the thematic "germ" from which many of the other thematic materials originate. It can be thought of as consisting of a head **h** and a tail **t** :



The head **h** can be described as a zigzag motion which characteristically alternates between ascending fourths and descending thirds; the tail **t**, as a descending stepwise melodic line. If we examine the whole sonata for these melodic elements, we encounter them in unmistakable form immediately at the start of the first movement (bars 1-3, top line):



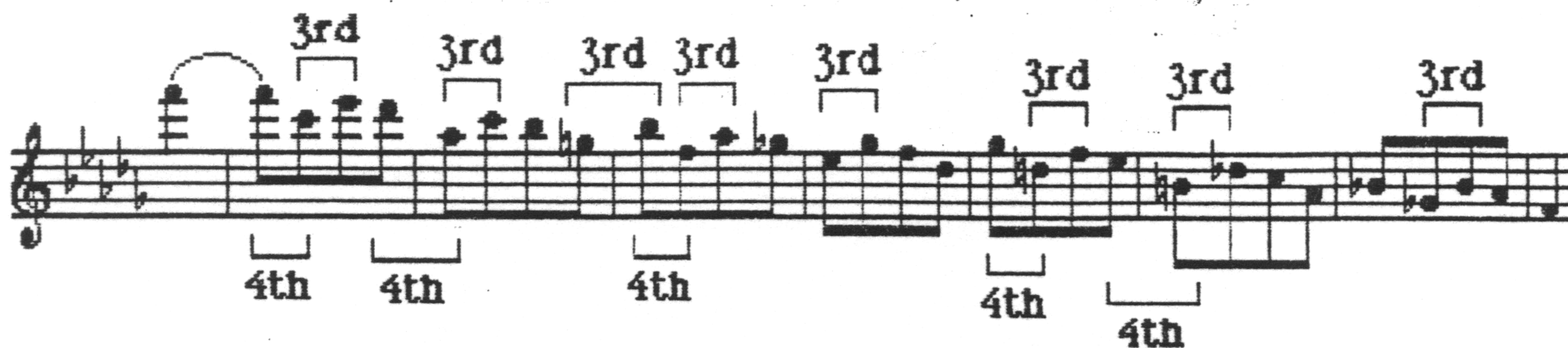
While traces of these same elements can also be found in most of the other themes of this movement, they are most conspicuous in the sixteenth-note passagework. For example, the descending thirds and ascending fourths of element **h** dominate bars 35-38:



In the second movement, element **t**, the descending scale line, can be seen in the top line of the opening bars:

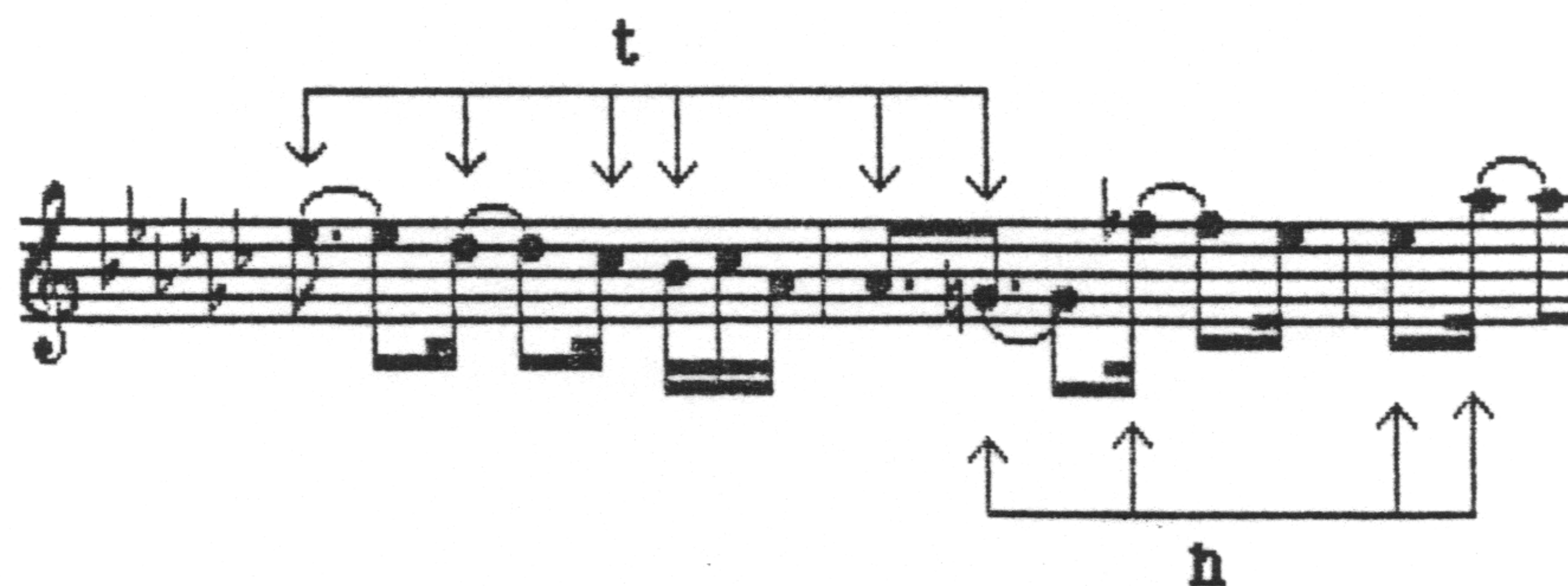


(Cf. bars 17-18 and 19-20.) The zigzag motion of element **h** can be found in the Trio, but in an inverted form: here (bars 40b-48) we find ascending thirds and descending fourths (similar to the second fugue subject):



In the last example, element **h** occurs in rapid note values which one might at first be inclined to dismiss as pianistic fingerwork without melodic significance. But we know from the second fugue of the last movement that the composer does not hesitate to present this motive in greater and greater degrees of diminution. In bar 147 of that fugue **h** is presented in simple diminution (i. e., in eighth notes). Then, in the section described above as "Fragmentation," **h** is transformed into still quicker sixteenth notes. Finally (bars 166 ff.), Beethoven quickens the tempo until **h** is reduced to an accompanimental flurry of notes.

In the last movement, elements **h** and **t** can be found, not only in the fugues, but also in each Arioso. Consider, for example, the melody line in the opening of the first Arioso (bars 3-5):



As the Arioso progresses, the zigzag **h** element becomes increasingly predominant, culminating in the fugue.

It is therefore clear in retrospect that the fugues not only are the dramatic climax of the work, but also contain in their subjects the ultimate expression of the motivic elements which dominate the thematic materials of all three movements and which give unity to this complex work.