The Allegro misterioso of Berg's *Lyric Suite*: Iso- and Retrorhythms
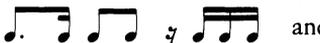
By DOUGLASS GREEN

F ROM THE START, Alban Berg found his own serial procedures, apparently never using Schoenberg's method in exactly the same manner as his teacher. Among his most remarkable contributions, in the light of future developments in serial music, are two that occur in the *Lyric Suite*: (1) he based a large part of one movement on two rhythms derived from the pitches of the twelve-tone set; and (2) he worked out a method of devising retrogrades of these rhythms, which anticipates certain serial rhythmic procedures of the next generation. That these advances were made as early as 1926 should add to Berg's still growing reputation as an innovator.

The set, as it appears at the beginning of the first movement of the *Lyric Suite* (the famous symmetrical, all-interval set devised by F. H. Klein), covers nearly two octaves. For its first appearance in the second movement (mm. 24–28, viola), the fourth and tenth notes are exchanged, and its range is reduced to that of a twelfth. In the third movement, it is compressed to lie within a single octave and transposed to begin on $b\flat$ (Ex. 1).

Example 1

In his commentary on the *Lyric Suite* written for Rudolph Kolisch, Berg speaks of how he has "split" the twelve-tone set and its inversion for the third movement, the Allegro misterioso.[1] The result, he points out, is a chromatic motive and "two important rhythms: [musical notation] and [musical notation]." The method of extracting these rhythms from the pitches of the set is a simple one. By compressing the set to lie within the space of an octave, the line produced can be heard as a compound melody, the upper plane moving by ascending half steps from bb^1 to e^2. In this way, the set is "split" horizontally into seven notes above and five below. By beginning the successive pitches of this version of the set after a single unit of duration, the aforementioned rhythms are produced. In measures 10–11, the unit is an eighth note; in measures 12–13, a sixteenth (Ex. 2).

Example 2

[1] Facsm. in *Alban Berg, Bildnis im Wort, Selbstzeugnisse und Aussagen der Freunde,* ed. Willi Reich (Zurich, 1959), p. 49.

Along with some preliminary sketches, a late-stage sketch of the entire *Lyric Suite* is housed in the *Musiksammlung* of the Österreichische Nationalbibliothek in Vienna. It is labeled, in Helene Berg's handwriting, *Studienpartitur*.[2] At measures 22–24 of the third movement, the parts for violin II and for viola carry the labels RH or RN (see Ex. 3).

Example 3

Although the symbols RH and RN do not appear in the published score—they occur elsewhere in the sketch only once—the term *Hauptrhythmus* is used in *Wozzeck* (Act III, scene 3), and the symbol RH is familiar from the Rondo ritmico of the Chamber Concerto for Piano, Violin, and Thirteen Wind Players.[3] The rhythm of the upper plane of the "split" set, then, is the *Hauptrhythmus* (RH), and the rhythm of the lower plane, the *Nebenrhythmus* (RN). In Example 3, measure 22, the version of RH in the viola part—marked (a)—is modified by an additional sixteenth note. Presumably, this change was made to fill in a "dead spot," for otherwise there is continuous sixteenth-note motion in this passage when the first violin and cello are taken into consideration. The second violin completes RH in measure 23/1 (i.e., the first beat of m. 23), where Berg has written a reverse bracket. Though not indicated by a symbol, RN begins at (b), finishing at the end of the measure with another reverse bracket. The brackets at the second beat of measure 23 refer, presumably, to the close of RH and the beginning of RN in the viola part—marked (c). RH and the first four notes of RN shift at measure 24 by one sixteenth note to a new metrical position, while RH in violin II is compressed by one sixteenth. Berg himself, then, has

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[2] Although a photocopy of the 57-page *Studienpartitur* has been cataloged as PhA 2174 at the Nationalbibliothek, the manuscript itself had not, as of June 1976, been assigned a call number. The note by Helene Berg goes on to say that this was the score "die Alban Berg bei Quartett-Proben benutzte." Presumably, it is for this reason that she chose to call it a *Studienpartitur*.

[3] Alban Berg, *Wozzeck* (Vienna: Universal Edition, 1955), p. 419, note at m. 122. *Kammerkonzert für Klavier und Geige mit dreizehn Bläsern* (Vienna: Universal Edition, 1925). The sign RH is used throughout the last movement of the latter work, and its meaning as *Hauptrhythmus* is explained at the beginning of the score.

left ample clues in the sketch and in the commentary for Kolisch regarding his intentions in this part of the Allegro misterioso, and it is not difficult to return to the beginning of the movement (or rather to m. 6) and discover how these two rhythmic patterns permeate measures 6–44 of the piece. It will then remain for us to see what becomes of RH and RN in the retrograde-reprise (mm. 93–138).

In order to clarify discussion of the Allegro misterioso, it is helpful to think of it as a series of ten brief sound-events leading up to the Trio estatico (see Table 1). Event I (mm. 1–9) comprises two stages, the second beginning with the cello entry at measure 6. The first six bars do not make use of the rhythmic patterns but instead twice sound, in steady sixteenth notes, three of the four versions of the set used in this movement. These are preceded by their initial tetrachords, also in sixteenth notes.[4] Rhythmically, the entrances are devised so that each one begins at a time interval of five sixteenth notes after the previous one. The result is that each starts on a different division of the beat: the fourth sixteenth note, the first sixteenth, the second sixteenth, and the third sixteenth, respectively. The same order—fourth, first, second, third—is then repeated twice until the entry of the cello brings in RH (mm. 6–7), immediately followed by RN (mm. 8–9). The time values at this point are the same as at measures 10–11 (Ex. 2), and, since this is the first time the rhythms are heard, we shall consider these the original rhythms and the versions in sixteenth notes diminutions.

Event II (mm. 10–17) is devoted to simultaneous presentations of RH and RN (as in Ex. 2) in all four instruments—twice in original note values and the remainder in diminution. The simultaneous statement of RH and RN in the outer parts at measures 11/3 – 13/2 contains an alteration in each rhythmic pattern, a reversal of the values of the second and third notes. The sketch shows that Berg originally intended to preserve the pattern intact at this point but changed his mind to produce this modification. In measure 13/2, the cello completes its statement of RH with the a♮. The succeeding notes, a♭ and g♮, are "extra" and show up in the sketch encircled and with a question mark. Throughout Event II, the player of RN is instructed, in the published score, to "complement" the player of RH. For instance, because the viola has RH in measure 10, the first violin part is marked there "die Br. ergänzend." Beginning at measure 13/2, the violins act as leader in a double rhythmic canon, viola and cello following after the equivalent of three eighth notes. In measure 15, the time interval is reduced to two eighth notes, RH in both leader and follower beginning on the last sixteenth of the beat. The second violin and cello act as leader at measure 16/2.[5]
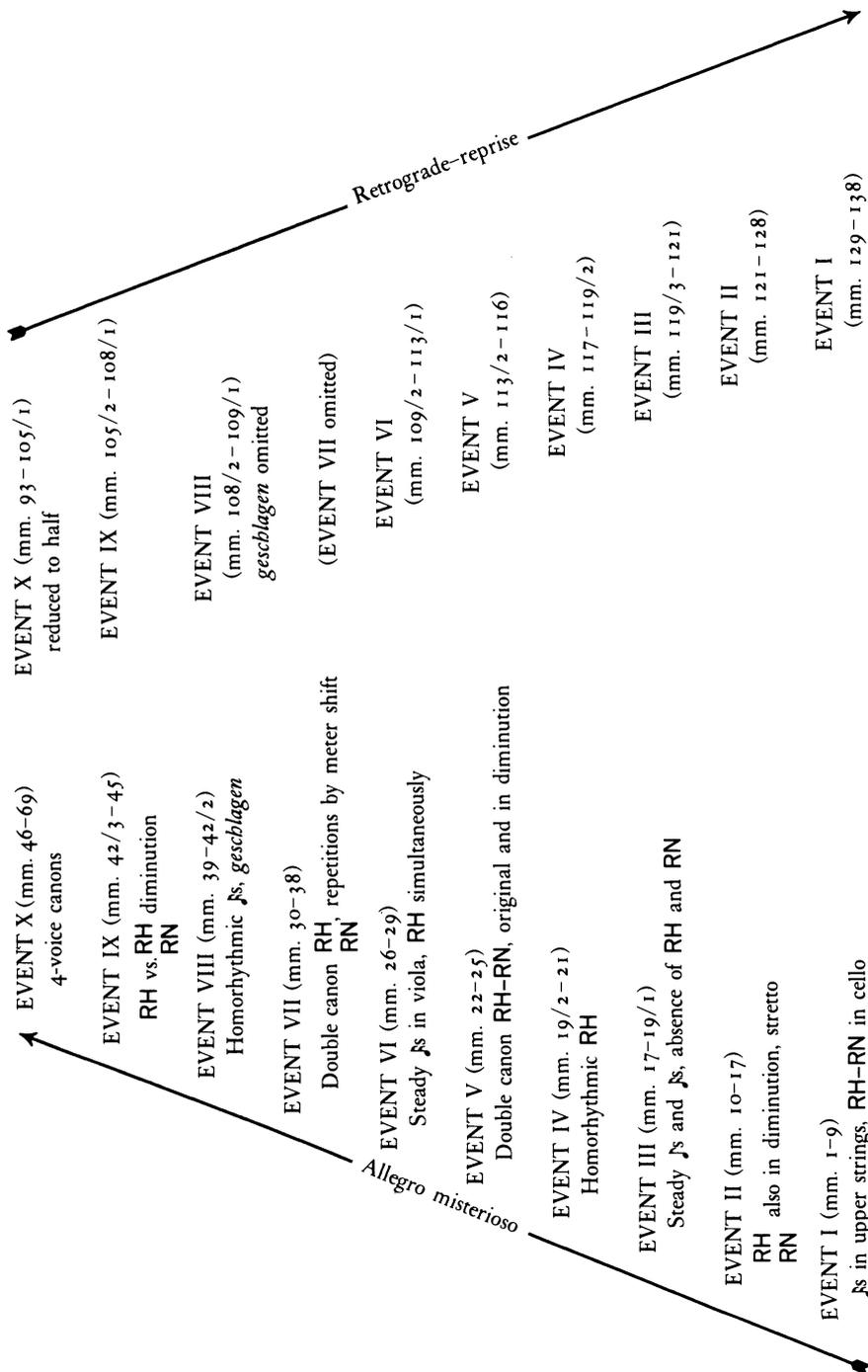
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[4] These versions are chosen because they begin with the same four-note collection. See Berg's remarks to Schoenberg reproduced in Donald Harris and Mark DeVoto, "Berg's Notes for the Lyric Suite," *The International Alban Berg Society Newsletter*, No. 2 (January 1971), pp. 5–7. The set forms are also reproduced in George Perle, *Serial Composition and Atonality*, 3d ed. (Berkeley and Los Angeles, 1972), pp. 63–64.

[5] Berg made one rhythmic change and two alterations of pitch in measures 15–16: violin II shortens the first note of RH by one sixteenth note (m. 16/2); and at measure 15, the viola begins RH on the final sixteenth note of beat 2, reversing the first and second pitches of the set. The sketch shows this reversal with a two-headed arrow. At measure 17/1, the first violin has the expected c♮[1] in the 1955 edition, but the 1927 edition—both score and parts—has b♭. The c♮ would seem to be a simple correction of an error except for the evidence of the sketch. Berg originally did write c♮ at this point, then he altered it to b♭, adding in the margin "b statt c." It would be enlightening to know who authorized the change for the 1955 edition.

TABLE 1

Trio estatico

RH–RN = successive rhythms
RH   = simultaneous rhythms
RN

Retrograde-reprise

EVENT X (mm. 93–105/1)
reduced to half

EVENT IX (mm. 105/2–108/1)

EVENT VIII
(mm. 108/2–109/1)
geschlagen omitted

(EVENT VII omitted)

EVENT VI
(mm. 109/2–113/1)

EVENT V
(mm. 113/2–116)

EVENT IV
(mm. 117–119/2)

EVENT III
(mm. 119/3–121)

EVENT II
(mm. 121–128)

EVENT I
(mm. 129–138)

Allegro misterioso

EVENT X (mm. 46–69)
4-voice canons

EVENT IX (mm. 42/3–45)
RH vs. RH diminution
RN

EVENT VIII (mm. 39–42/2)
Homorhythmic ♪s, *geschlagen*

EVENT VII (mm. 30–38)
Double canon RH, repetitions by meter shift
RN

EVENT VI (mm. 26–29)
Steady ♪s in viola, RH simultaneously

EVENT V (mm. 22–25)
Double canon RH–RN, original and in diminution

EVENT IV (mm. 19/2–21)
Homorhythmic RH

EVENT III (mm. 17–19/1)
Steady ♪s and ♪s, absence of RH and RN

EVENT II (mm. 10–17)
RH also in diminution, stretto
RN

EVENT I (mm. 1–9)
♪s in upper strings, RH–RN in cello

Event III (mm. 17 – 19/1) overlaps the end of Event II, beginning in the cello (m. 17/1). Although neither rhythm is stated in this brief passage, it is of some interest that the sketch reveals that Berg planned at one time to present the set as RH entirely in the cello, rather than as the steady eighth-note pattern divided between cello and viola.

Event IV (mm. 19/2 – 21) is of equal brevity. A three-part homorhythmic passage played *tremolando* on the bridge presents RH in original note values. The addition in each part of two "extra" notes leads into the next event.

Event V (mm. 22–25) was illustrated in part by Example 3, and the canonic aspect of the inner voices was sufficiently explained. The outer voices present RH followed by RN as a rhythmic canon in original note values: the first violin leads, followed by the cello at a time interval of one eighth note.

Event VI (mm. 26–29) presents RH homorhythmically with grace-note embellishments in violins and cello against a steady sixteenth-note pattern in the viola.

Event VII (mm. 30–38) is the most complex of the ten events. It is also the only one entirely omitted from the retrograde-reprise of this movement. It displays RH and RN simultaneously in diminution as a unique type of double canon. The cello and first violin play a rhythmic canon based on RH, the violin following the cello after a time interval of one quarter note. Berg extends RH by adding an eighth note to it, bringing its total duration up to seven eighth notes, or one full measure plus one eighth. This version of RH is then repeated six times and part of a seventh, each repetition, because of the added eighth note, being shifted by the value of one eighth note to a different metrical position. In the second violin and viola, RN begins as the "complementary" rhythm to RH, as before. But instead of adding an eighth note to its total durational value, Berg subtracts an eighth note from it, bringing the length of RN down to the equivalent of five eighth notes. Thus RN, in the inner voices, is, at each repetition, in a different position relative to RH in the outer voices. The situation is complicated still further in that only the viola states RN in a straightforward manner each time. The second violin alternates normal versions of RN with a variant of the time values of its first two notes: rather than beginning with a sixteenth note and the equivalent of a dotted eighth, the variant (RN') begins with the equivalent of two eighth notes (see Ex. 4).[6]

Consideration of Events VIII (mm. 39 – 42/2) and X (mm. 46–69), though highly interesting from several points of view, would not be relevant to this study, as neither RH nor RN plays a part in them.[7]

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[6] For the sake of clarity, the notation of the rhythmic patterns in Ex. 4 differs from the published score in the following manner: each note preceding a rest is lengthened by the value of the rest while the rest itself is omitted. Since rhythmic patterns are delineated by the attacks of the successive notes rather than by their releases, "filling in" the rests by lengthened note values does not alter the rhythmic pattern. This fact will be of some importance below when we come to consider Berg's manner of composing rhythmic retrogrades for the reprise of the Allegro misterioso.

[7] Event X is elucidated by Jan Maegaard, "Ein Beispiel atonalen Kontrapunkts im Frühstadium," *Zeitschrift für Musiktheorie*, III (1972), 29–34. The relevant part of this article has been translated by Joan Allen Smith and Mark DeVoto and appears in *The International Alban Berg Society Newsletter*, No. 3 (January 1975), pp. 4–7, with the title "Berg's Seventeen Four-Part Canons: The Mystery Solved."

Example 4

For Event IX (mm. 42/3 - 45), the first violin plays **RH** in original note values with an eighth note extension (mm. 42-44). Against this (m. 43), the second violin and viola present **RH** and **RN** simultaneously in diminution, but without the final three sixteenths which are normally a part of **RH**. The second violin leads into this statement of **RH** with three sixteenths (m. 42/3). One could, then, consider that the segments of **RH** have simply been rearranged. The purpose of this alteration in **RH** seems to be to cause the second violin to play one version of the four-note collection, as at the start of the movement, and thus tie in with the cello's statements of these tetrachords in measures 43/3, 44, and 45.

Berg's sketch of the *Lyric Suite* shows that when he began to compose his retrograde-reprise, he viewed retrorhythmic procedure as a simple matter. Just as Webern and Hindemith were to do in the Symphony Op. 21 and *Ludus Tonalis*, respectively, Berg began by writing a systematic reversal of note values. The first violin part of Event IX is shown in Example 5 as it first appears in measures 42-45 and as the sketch has it for the retrograde-reprise (mm. 105-8), called here retro-Event IX.

Example 5

Berg's first inclination (lowest staff of Ex. 5) was simply to copy out the note values in reverse order, without, however, reversing the grace notes. He then crossed this out and on a staff above wrote the version that was "richtig," and the one to be published. Aside from including the grace notes in the retrograde procedure, he altered the rhythm slightly. At first glance, the rhythm of measure 107 in the final version seems to be a less faithful reflection of the original rhythm than is the rejected version. But rhythms are perceived through attack points alone, not through a combination of attacks and releases. Thus, in the "Hammerklavier" fugue (Ex. 6), Beethoven writes (c)—not (b)—as the retrograde of (a).
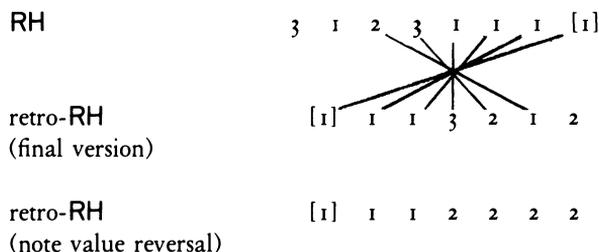
Example 6

(cf. also m. 174)

That Berg's published version of measure 107 is not an arbitrary rhythm becomes clear if the original (mm. 42/3 – 43) is renotated as attack points using, for example, the eighth note to represent a point (Ex. 7). The only discrepancy is that the final note, g^3, begins one eighth note early.

Example 7

Retro-Event IX (Ex. 5, middle staff) contains a genuine reversal of the original rhythm RH, with the exception of the last note. In spite of the fact that the crossed-out version uses note values identical to the original, it is, as heard, less closely related to it than is the published version. This becomes clear if we count, in eighth notes, the duration from one attack point to the next. The "extra" note is shown in brackets and grace notes are disregarded.

RH   3   1   2   3   1   1   1   [1]

retro-RH   [1]   1   1   3   2   1   2
(final version)

retro-RH   [1]   1   1   2   2   2   2
(note value reversal)

Since attack points, not releases, determine a rhythm, the length of the final note in a rhythmic pattern is irrelevant. It follows, then, that the published version of retro-RH is, because of the "extra" note, an exact reversal of the attack point durations of the original RH—that is to say, the rhythmic series appears in retrograde form. Moreover, the five middle notes (e^1, b^1, f^2, bb^2, eb^3) have the rhythm of RN, for RN, represented in attack-point durations, is the series 1 3 2 1. Berg's manner of constructing rhythmic retrogrades has resulted in a kind of by-product: the recurrence in the retrograde-reprise of the original isorhythmic patterns.

Retro-Event VI (mm. 110–12) sets right the discrepancy of the last note's premature entry in retro-Event IX (see Ex. 7). Otherwise, the two rhythmic treatments are identical.

The sketch shows that for retro-Event V (mm. 113–16), Berg began, as with retro-Event IX, by copying out the exact note values of the original in reverse order (Ex. 8a–b). He then sketched a different rhythm in green pencil above his first draft, and this became the published version (Ex. 8c). Again, the final version seems, at first glance, to be only vaguely related to the original.

By consideration of attack points only, however, it becomes clear that, with the exception of the last measure (m. 116), the published version is a genuine retrograde. (Final note values being irrelevant, their durational value numbers are placed in parentheses.) The meaning of the aberration in this final measure is revealed when the rhythms decided upon by Berg for measures 113–16 are compared with those of measures 22–25. There are close similarities between the seven notes of RH and the five of retro-RN, as well as between RN and retro-RH (see Ex. 9).

It will be remembered that in Event V, the first violin and cello are in canon after a time interval of one eighth note. Since in the first part of the movement the first violin acted as leader, in the retrograde-reprise this role falls to the cello which has, of course, a rhythmic pattern identical to the one shown above.

Retro-Event IV (mm. 117 – 119/2) repeats the rhythmic variant of retro-Event V (Exx. 8, 9).

Example 8

durations in 8th-note values

Example 9

Measures 22-25:

Measures 113-16:

Judging from the many erasures in the sketch, retro-Event II (mm. 121/2 – 128) seems to have given Berg a good deal of trouble.[8] In the final version, the rhythm of these double canons proves to be a systematic reversal of the rhythmic series of the

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[8] During this event there are several places where pitch order is reversed and a few where other minor changes of pitch occur. Three of the reversals are clearly indicated in the sketch either by crossed-out notes or by two-headed arrows. They occur in the following places: cello, 122/1; violin I, 125/2; violin II, 126/1.

attack points (Ex. 10). Here again, then, the rhythm of the seven notes of RH includes

Example 10

the rhythm of the five notes of retro-RN, and retro-RH includes RN.

Retro-Event I reverses the successive appearances of RH and RN in the same manner as does retro-Event V—that is, with the deviation shown in Example 9 (Violin, mm. 113–16 = cello, mm. 129–32).

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Throughout the history of Western music, retrorhythms have tended to occur in canons or in pieces marked *al rovescio*—that is, works for which the composer has notated only the original version. The players are left to perform the work in reverse order, observing the identical note values as a matter of course. In such cancrizans canons as that for two violins in Bach's *Musical Offering*, the Minuet and Trio in Haydn's Piano Sonata No. 26 in A, and in his Symphony No. 47 in G, the pleasure is often less that of the listener than that of the players who are amused by the novelty of reading back to front. The sketch for Berg's *Lyric Suite* shows that, in the process of composing his retrograde-reprise, Berg realized that an audible, as opposed to a visual, rhythmic retrograde must reverse the durations of the successive attack points.

In summary, then, the rhythmic patterns in Berg's Allegro misterioso are characterized by three procedures: (1) derivation of the two rhythms (RH and RN) from the pitches of the set; (2) isorhythmic treatment of these two rhythms in much of the first part of the movement; (3) retrorhythms in the reprise which are devised by a serial method rather than by a simple reversal of note values. Berg, of course, had written an isorhythmic composition previously, the so-called "Invention on a Rhythm" (Act III, scene 3 of *Wozzeck*)—one in which the single rhythmic pattern is even more pervasive than in the two patterns of the Allegro misterioso. The other two rhythmic procedures were apparently worked out for the first time during the composition of the *Lyric Suite*,[9] and they are a remarkable foreshadowing of rhythmic practices of a later time.

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[9] Hans Redlich shows how, in *Lulu*, Berg devised a "Leitrhythmus" from the pitches of a row in a manner similar to the one he used for the Allegro misterioso (*Alban Berg: The Man and His Music* [New York, 1957], p. 182). Wolfgang Martin Stroh ("Alban Berg's 'Constructive Rhythm,'" *Perspectives of New Music*, VII [1968], 18–32) gives a more complete discussion of the "RH factor" in *Lulu*, along with an outline of Berg's RH procedures from his early works through the Violin Concerto.