Aspects of Performance Practice in Morton Feldman's *Last Pieces*

*Robert Morris
Eastman School of Music - University of Rochester
rmorris@esm.rochester.edu
DOI: 10.46926/musmat.2020v4n2.28-40

Abstract: *Morton Feldman's* Last Pieces *for piano solo of 1959 poses an interesting interpretive problem for the performer. As in many Feldman compositions of the 1950s and 60s, the first movement of the work is notated as a series of "sound events" to be played by the performer choosing the durations for each event. The only tempo indications are "Slow. Soft. Durations are free." This situation is complicated by Feldman's remark about a similar work from 1960, "[I chose] intervals that seemed to erase or cancel out each sound as soon as we hear the next." I interpret this intension to keep the piece fresh and appealing from sound to sound. So, how the pianist supposed to play* Last Pieces *in order to supplement the composers desire for a sound to "cancel out" preceding sounds? To answer this question, I propose a way of assessing the salience of each sound event in the first movement of Last Pieces, using various means of associating each of its 43 sound events according chord spacing, register, center pitch and bandwidth, pitch intervals, pitch-classes, set-class, and figured bass. From this data, one has an idea about how to perform the work to minimize similarity relations between adjacent pairs of sound events so that they can have the cancelling effect the composer desired. As a secondary result of this analysis, many cohesive compositional relations come to light even if the work was composed "intuitively".*

Keywords*: Morton Feldman. Musical Set Theory Analysis. Performance of Twentieth-Century Music. Musical Contour Analysis.*

I. Introduction

Writing in 1962 on his compositional evolution, Morton Feldman states:

> After several years of writing graph music, I began to discover its most important flaw (...) if the performers sounded bad it was less because of their lapses in taste than I was still involved with passages and continuity that allowed their presence to be felt. [3]

*An earlier version of this paper was presented with the same title at the Third Biennial International Conference on Twentieth-Century Music, University of Nottingham, England, UK on June 29, 2003.

Received: July 17th, 2020
Approved: December 9th, 2020

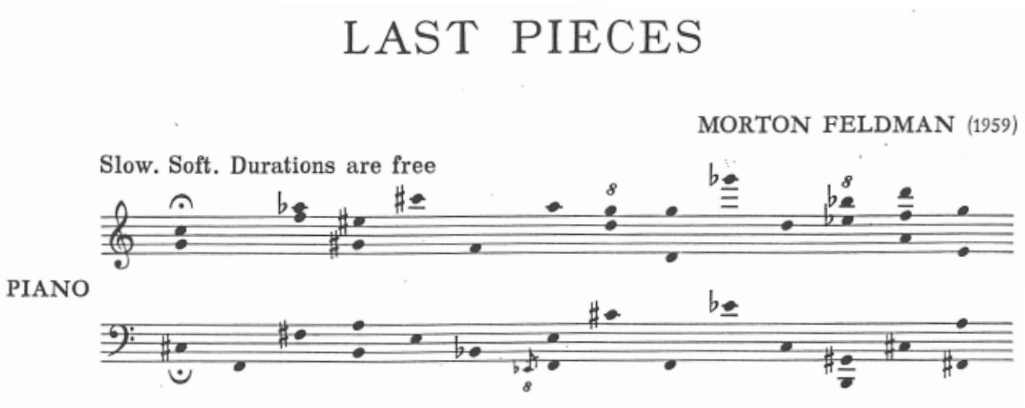

Figure 1: *First system of Morton Feldman's* Last Pieces *(1959).*

Feldman's solution was to compose a series of "sound events" to be played at a given tempo with the performer choosing the durations for each event. One such work is *Last Pieces* (1959) for piano in four movements. The sound events are single chords or tones (each notated with unstemmed quarter notes) occasionally accompanied by a grace note or a fermata. The first movement, for instance, is written on three systems, has 43 sound events and is marked "Slow. Soft. Durations are free." Figure 1 shows the first system of the work; Figure 2 shows the 43 sound events, numbered and lined up in tens for easy reference. Grace notes are not distinguished from the other notes.

It would seem that performing such a piece is straightforward enough. But playing the sounds events one by one, listening carefully to each, gives rise to questions of nuance that in performance can radically alter the flow and character of the musical experience. Commenting about a sister piece, Durations, Feldman offers this: "[I chose] intervals that seemed to erase or cancel out each sound as soon as we hear the next" [3]. This desire for sonic particularity was shared by many composers of the early 1950s—Stockhausen, Cage, Messiaen. But in works like *Last Pieces*, the performer has the responsibility of projecting the "suchness" of each sound event without fail over the entire extent of the piece. We might think of the performer's task as similar to the curator of an art show. Given a number of paintings on a theme to be displayed in a certain order on the walls of a hallway, how should they be hung so that each painting is presented to its best advantage, not diminished or overshadowed by another. Questions of lighting, wall position, grouping of adjacent painting will naturally arise and be highly dependent on the nature of each painting. The difference, of course, is that the musician has to do this with sound events in real time.

To this end, it is useful to carefully consider the nature of each sound event from a number of points of view, not to group the events into classes or hierarchies, but to fully explore each event's particularity and the ways in which one can project its character via nuances of piano touch, voicing, pedaling, and duration. I will therefore examine the sound events in the first piece of *Last Pieces* using concepts and techniques from twentieth-century music theory. I will show there are overlapping patterns of association in the work, which provide criteria for projecting various interpretations that fulfill Feldman's desire for local sonic presence.

But before I begin, I want briefly to address Feldman's strong and often negative views toward music theory. For instance, when the then young composer/pianist, Frederik Rzewsky referred to one of Feldman's pieces as, "You know that canon for two pianos?," Feldman mentally retorted, "Canon, me, my canon? Oh yes, that free-durational piece. It was a canon, I suppose. To tell you the truth, if I thought it was a canon, it would have caused me to commit suicide" [2]. But it was

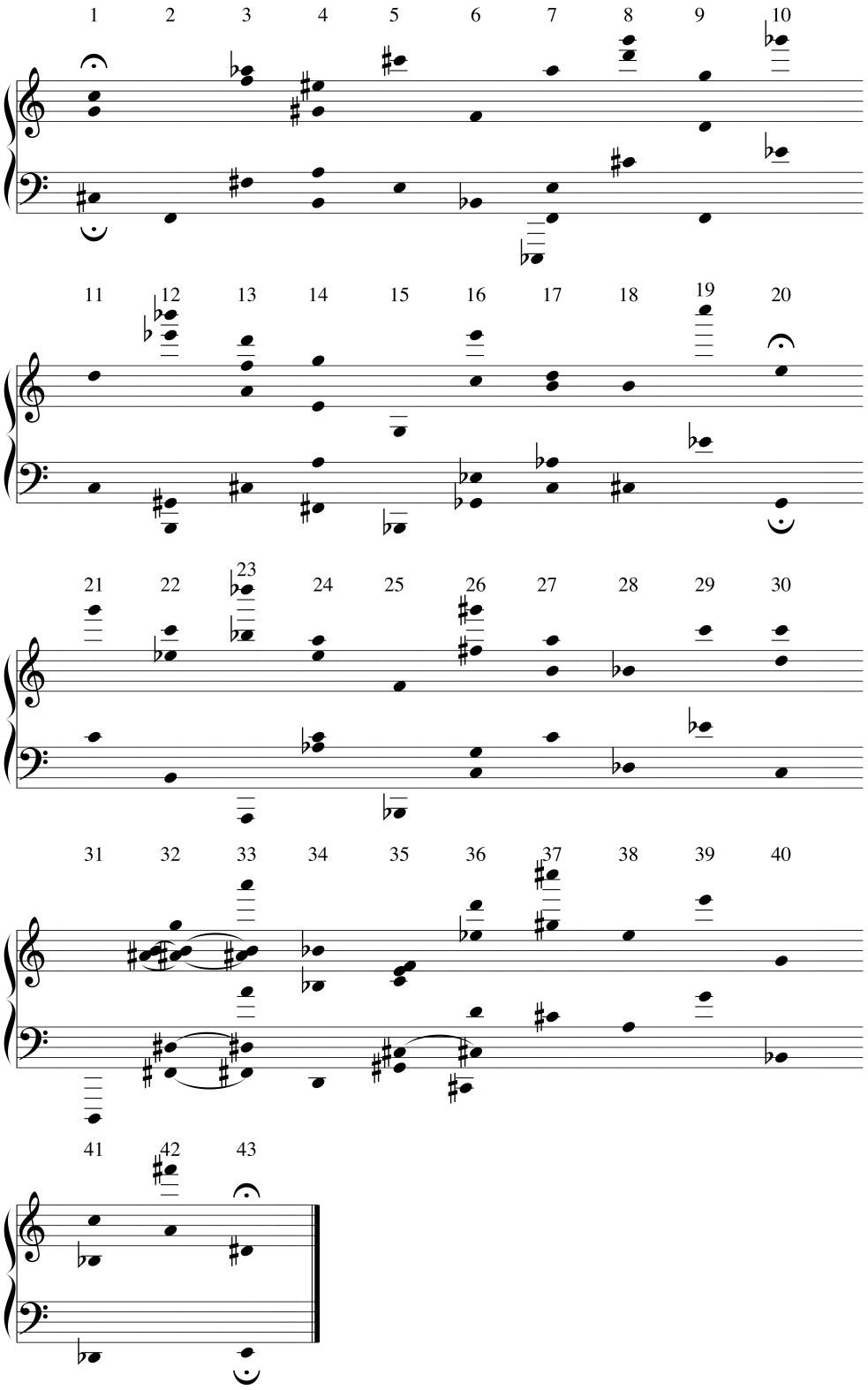

Figure 2: *The 43 sound events of movement I from Feldman's* Last Pieces *(1959).*

not only that Feldman did not recognize his music as defined by inappropriate technical terms, Feldman's whole aesthetic enterprise was designed to transcend the influences and habits of the past, and to avoid at all costs what he called "compositional rhetoric".

Nonetheless, Feldman did not consider sounds to be context free; there is context, that of other sounds, but not theoretic models and systems, on one hand, or traditions and past practices, on the other. So a suitable methodology for examining Feldman's music must concern musical materials before they are conscripted into generic relationships with each other according to some syntax or practice—as William Carlos Williams put it, "no ideas but in things." Oddly enough, the principles of musical set theory are just what is necessary for this task. Feldman himself made this point, if grudgingly, "I do not deny the validity of the pitch set, but in relation to sonic experience today, it seems to me as equivalent to the baby's playpen, and just as full of toys and pacifiers. [1]" Of course, if he knew of any musical set theory in the 1960s, it would have been Allan Forte's work, which only treats sets of pitch-classes and in music that did not interest Feldman. But by 1980, his descriptions of his compositional method is conceptually set-theoretic. In fact, in his last years, Feldman often referred to himself as closet serialist.

But if I need any further justification for my method of analysis, in 1963 Feldman wrote,

> When sound is considered as a horizontal series of events all its properties must be extracted in order to make it pliable to horizontal thinking. How one extracts these properties now has become for many the compositional process. In order to articulate a complexity of such close temporal ordering one might say differentiation has become here the prime emphasis on the composition. [5, p. 12]

The properties I shall extract from the 43 sound events of the first movement of Last Pieces, will be from three interconnected domains: contour, pitch, and pitch-class. We shall assess a sound event's singularity with respect to a given property, by placing it within the range of values presented by all the sound events having that property. In this way, we shall locate sounds events that are singular in pitch, range, interval content, and other properties of this kind. In order to address Feldman's requirement that sounds should erase or cancel out previous ones, we will attend to the degree of disjunction between successive events and the associative connections between both adjacent and non-adjacent events. This approach is based on three hypothetical principles:

- If a sound event is followed by something very different it will be eclipsed by the novelty of the new event;
- If a sound event X is noticed to be like another from before, the presence of the sound events immediately before X will be diminished since they are perceived to be sonically remote from X and the previous event which X resembles;
- From the above, adjacent sounds are relatively alike, they tend to be grouped and thereby lose some of their individuality, but if the group is followed by a different sound, the new sound's suchness is contextually highlighted.[1] Thus, a sound event's singularity is affected not only by its relations to all of the others, but to its local context.

Let me begin by attending to some terminology. I shall henceforth use the term *chord* to stand for sound event or verticality, even though some of the "chords" in the piece are dyads or single tones. The term *width* will stand for bandwidth, the number of semitones from the bottom to top of a chord. *Center* will stand for that pitch or semitone dyad that is equidistant between the highest and lowest notes of a chord.

[1] Stockhausen's idea of "Experiential time."

Looking over the 43 chords in Figure 2, we note they are grouped into three sections by Feldman's use of fermatas. Chord #1 sets the tone, and two sequences of chords follow; #2-#20, #21-#43. In this soft and slow piece, it's possible that Feldman wanted the fermatas to indicate that a sound is to be sustained until extinction. Feldman says, "The attack of a sound is not its character....Decay, however, this departing landscape, this expresses where the sound exists in our hearing—leaving us rather than coming toward us."[4] The other 39 sounds events are undifferentiated in notation and their durations are free; they may range from a second or two to much longer and from performance to performance.

The 43 chords come in different sizes and shapes. Dyads are the most frequent, and the few chords of five and six tones are arpeggiated. A look at Figure 2 shows that there are runs of dyads and chords of three and four notes here and there. Taking the 43 chords at once, they encompass a width of 71 semitones, from the lowest D of the piano, which is played alone in chord #31, to the highest ♭ of event #23. Apart from the two single-note chords, #2 and #31, the narrowest chord is #38 of 19 semitones; the largest is chord #23 of 64 semitones. Thus there are no multiple-note chords of less than an octave and a fifth, obliging them to be played with two hands. The most frequent width is 21 semitones, shared by 7 chords, three of which occur successively as #27-29; another adjacency is #39 and #40.

Figure 3 shows what pitches and pitch-classes constitute the chords. We see a fairly normal distribution of pitches, but some are infrequent or omitted in the middle range, and the peak is not at the center but at two pitches — C♯ below and B above middle-C – because the chords are played by the two hands. All this indicates that the overall distribution of notes is not a global characteristic of the particularity of the piece. The chart also helps us to locate those rare pitches whose scarcity induces a certain charisma, or points out the common pitches between chords that associate them. (By the way, there are many instances of each pitch-class, with C and C♯ dominating and F♯ G♯ and B less frequent.)

We can also group the 43 chords into types by register, center, and what I have called *spacing-types*. As I mentioned before, there are no narrow chords in this movement. The average width is 31 semitones, with just about as many widths above and below this number. Figure 4 shows the multiple-pitch chords with the lowest and highest centers; it also shows that the two one-pitch chords are lower than any center of a multiple-pitch chords. Chord #42, the next to last, has the highest center pitch. The example additionally shows the largest set of chords that share the same center, the dyad middle C and D♭. The set includes the first chord plus #14, the only chord of more than 2 tones that has mirror symmetry around its center. No two adjacent chords have the same center, but the example shows two pairs that have adjacent centers.

There are six spacing types: *even*, *uneven*, *overtone*, *inverse-overtone*, *centered*, and *barbell*. Figure 5 illustrates the spacing types. Almost half of the chords are of even spacing, but most of these are trivial since a chord of one or two notes must have even spacing. Overtone spacing, with the intervals becoming narrower at the top of a chord, are next most frequent; these produce a clear and resonant, bell-like sound. Barbell spacing is also frequent with its two groups of neighboring pitches situated at the top and bottom of a chord with a wider interval between the groups; these chords fit nicely under the two hands. Two spacing types are uniquely represented: chord #14, mentioned above, is centered and is the only multiple-note chord that has mirror-symmetry. Chord #7 has inverse-overtone spacing; its singularity is heightened by its low E♭ grace-note, which is the next to lowest pitch in the piece.

pitch distribution

octave 1	octave 2	octave 3	octave 4
0123456789AB	0123456789AB	0123456789AB	0123456789AB
11 121	21 13412 22	45 32 12232	322433 31345
x xx	x xx	x xx xx x x xx xx xxxx xx xx xxxxx	x xx x xxx x xxx xxxxxx x xxx xxxxxx xxxxx

octave	octave 6	octave 7
0123456789AB	0123456789AB	0123456789AB
3 323313231	31312 22111	12
x x xx x x x xxxx xxx x xxxxxxxxx	x x x x x xx xxxxx xxxxx	x xx

pitch-class distribution

0	1	2	3	4	5	6	7	8	9	A	B
13	13	10	11	11	9	8	11	8	11	12	8
x	x										
x	x									x	
x	x		x	x			x		x	x	
x	x	x	x	x			x		x	x	
x	x	x	x	x	x		x		x	x	
x	x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x	x

Figure 3: *Pitch and Pitch-class distribution in Feldman's* Last Pieces *(1959).*

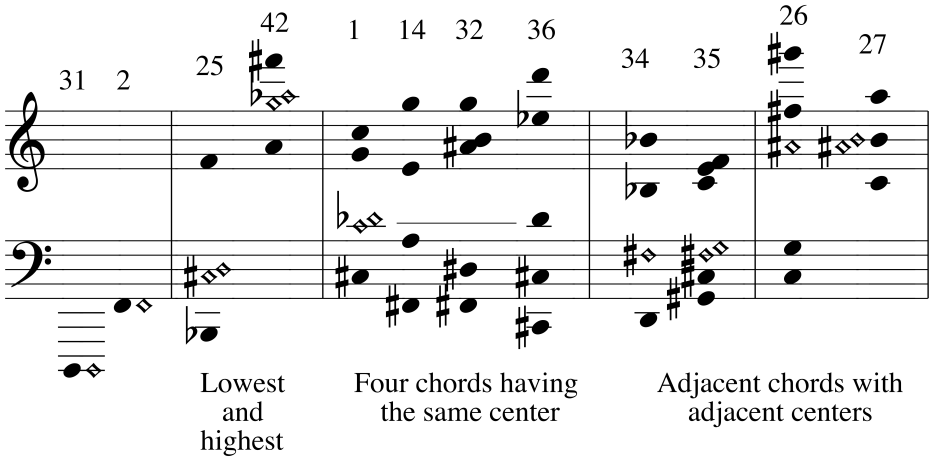

Figure 4: *Centers of Chords in Feldman's* Last Pieces

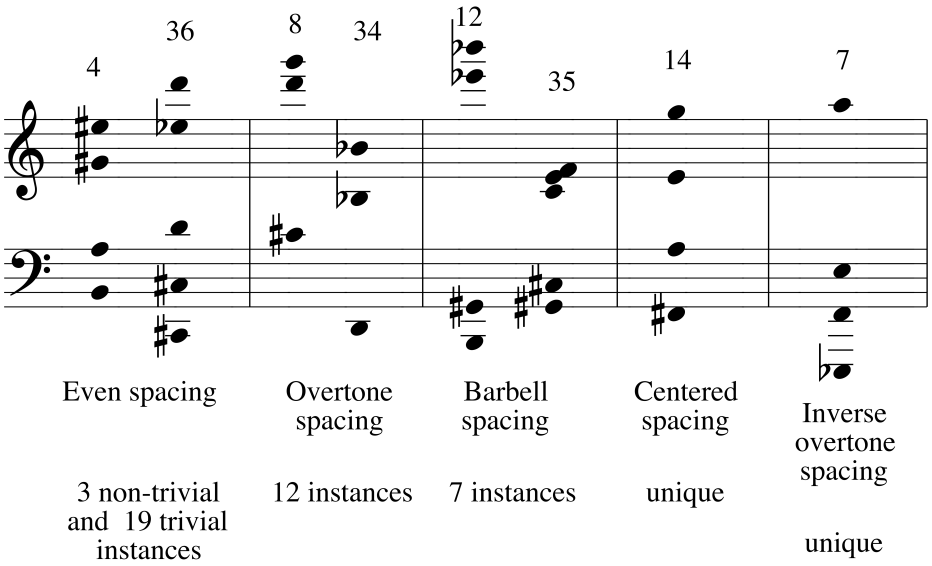

Figure 5: *Chord Spacing Types in Feldman's* Last Pieces *(1959).*

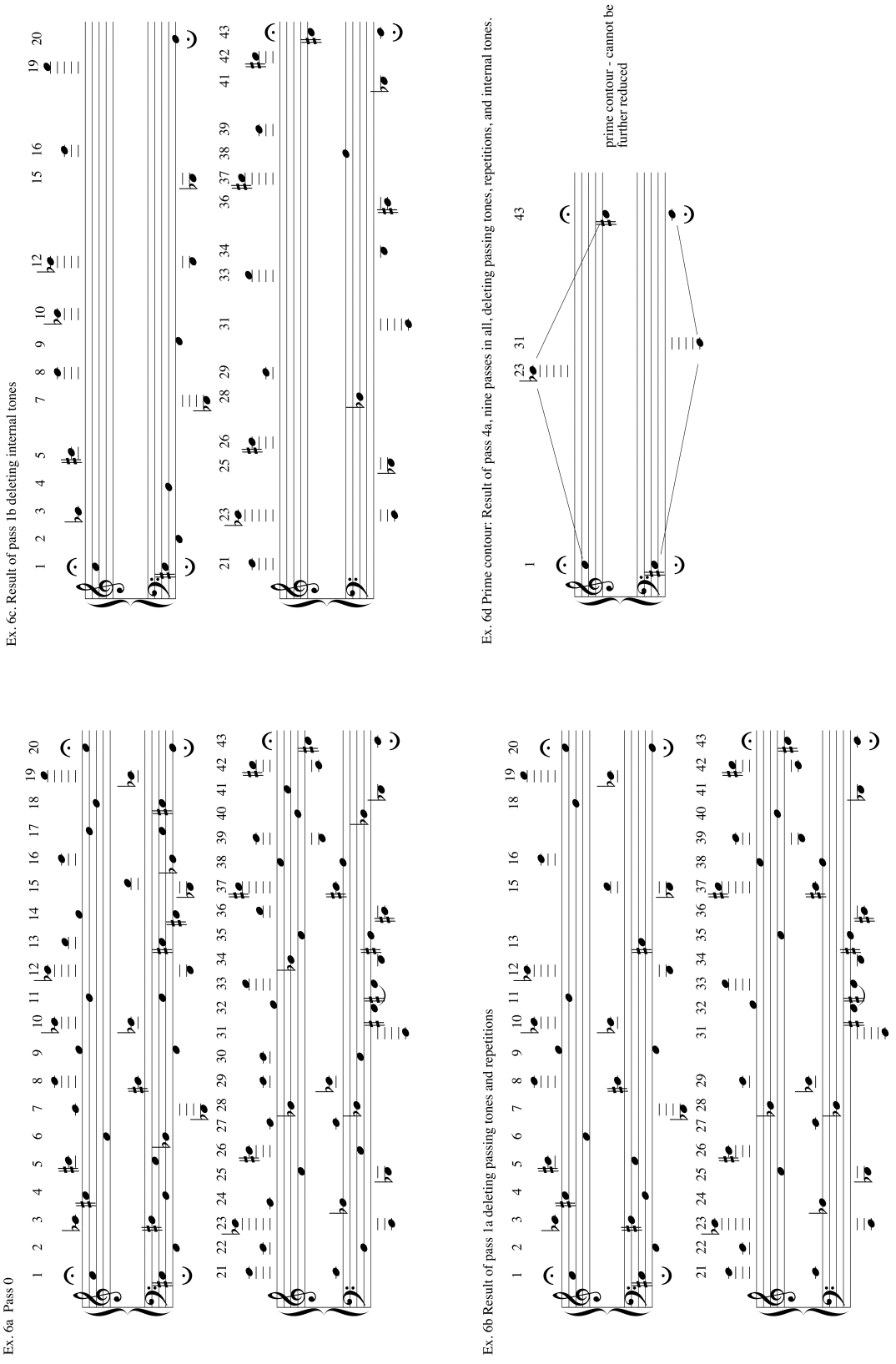

Figure 6: *Contour reduction of outer voices of chords in Feldman's* Last Pieces *(1959).*

We now turn to the contour of the outer voices of the 43 chords. Figure 6a, called pass 0, extracts these notes from the chords. The frequent zigzag motion of the extracted voices tends to make sure adjacent chords are not connected by anything like traditional voice-leading. The rest of the example shows the application of a version of my contour-reduction algorithm. Figure 6a, is gradually reduced to simpler and less turbulent contours by the alternative application of two types of rules. One first removes what we recognize as passing and repeated tones from each of the two lines; this shown in Figure 6b called "result of pass 1a." Then one removes internal tones, those that are not the maxima of the upper voice or minima of the lower voice. The result of this is Figure 6c called "result of pass 1b." We continue until the rules cannot be applied any longer. The result is a prime contour, shown in Figure 6d. As the algorithm is applied, various chords are omitted until the resulting prime references only four of the chords, #1, #23, #31, #43. The fact that it takes eight applications of the algorithm to fully reduce the chords to the prime testifies to the complexity of the local changes of the outer voices. To see this, consider a descending series of notes; it takes only one pass of the algorithm to reduce it to a prime. We can ask however how relevant it is to apply this tool to the Feldman piece, as it shows that there are multiple and hierarchical levels of contour change going on in a piece that attempts to assert local particularity above all. But such levels may function to group events so as to assert greater degrees of suchness after clusters of similar events, as in the third of my three hypothetical principles. On the other hand, the events in the prime contour do assert singularity for they are the piece's first and last chords and the chords with the lowest and highest text pitch; moreover, the single low D of #31 further asserts its unique contour function.

Up to now, I have treated the notes of this piece without attending to the exact intervals between and among them. An important question arises when we contemplate intervals and sets of notes: Should we consider this piece to assert octave-equivalence or not? While there are many simultaneous octaves and adjacent octave intervals in the piece, we could regard them as ways to produce various timbral effects as in chord #33, shown in Figure 7a, in which the double-octave A♮ are the only tones articulated because the others are tied from the previous chord. Another striking chord with octaves is the very next one, #34. Yet, #33 and #34 have a very different "determinant feel," which is induced in part by where the octave is located in each chord. From the sonic effect of such examples, we see that the presence of octaves need not recommend that the pitches in this piece—or of any twentieth-century composition—be regarded as pitch-classes; after all, the octave is just one interval out of many, each of which have different qualities and weights. And conversely, an absence of octaves need not imply that it is inappropriate to use pitch-classes and their sets in analysis; in fact, a good deal of atonal music and twelve-tone music without simultaneous or successive octaves makes sense mainly from a pitch-class point of view. In any case, as I have argued elsewhere, it is good practice to separate out the aspects of tone relations that depend on pitch versus pitch-class.

Octave relations are implicated from the second chord of the piece. Figure 7b, shows chords #2-#7. It is interesting to ask oneself if one hears an octave pitch-class relation from the single F♮ in chord #2 to the inner voice F in chord #3. If one does, the two Fs are still distinct because they occur in different locations in each chord. If one does not, it might be because the low F is connected to the F♯ in the bass of chord #3 by the smallest interval between the two chords. We can also ask about the E♯ and G♯ in the chord #4. Do we hear them as connected by repetition and octave transfer from #3? Feldman's enharmonic notation suggests that this connection may not be intended, but the pianist could bring out an octave connection by voicing the chords to that end. The rest of Figure 7b shows other octaves and pitch repetitions. Figure 7c indicates that chord #21 beginning the third section of the piece exchanges the notes of the previous chord sustained by the fermata. Here again the pianist can support or suppress this connection. The three chords in

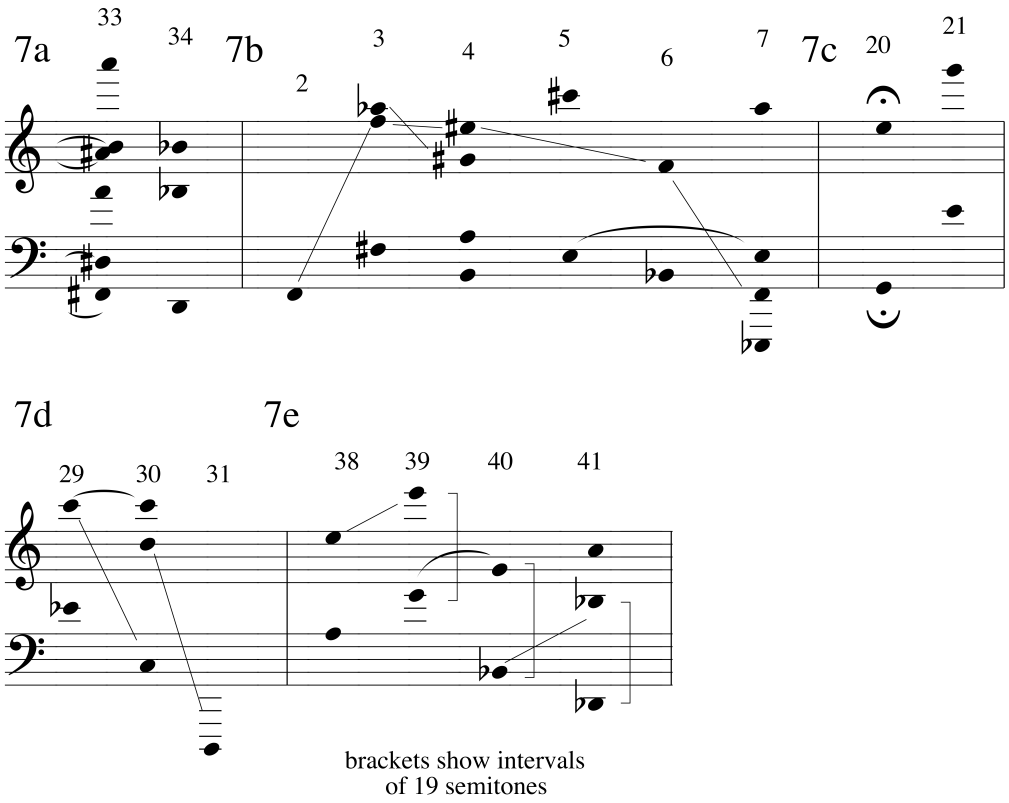

Figure 7: *Octaves and pitch repetitions in Feldman's* Last Pieces *(1959).*

Figure 7d present five pitches and three pitch-classes. Chord #30 repeats the high C of #29 but also launches a leap of three octaves down from #29 to #30. Then the D enclosed by the Cs in #30 leaps down four octaves to the singular low D in #31. Or do we hear Cs and Ds in different registers, or different colors of the same pitch-class set? Obviously the judicious use of the right piano pedal can help underscore one or more of these different hearings. In Figure 7e , the sequence of chords #38 to #41, projects some octave relations among the notes E, G, and B♭. The connection between #39 and #40 is unique because the lowest note of a chord becomes the highest note of the next. And there is an additional feature here; the bracketed notes are all of the same pitch interval of 21 semitones. Once again pitch and pitch-class relations are intertwined

The intersection of pitch and pitch-class spaces is addressed by the adaptation of a traditional analytic tool, figured bass. Here the figures are the numerals from 1 to 12. The number n written under the bass of a chord indicates the presence of chord tones n semitones plus any number of octaves above the bass. Figured bass equivalence mediates between pitch and pitch-class set-classes. Figure 8a shows chords #3, #27, and #41. While each chord is from a different pitch set-class, all three are members of the pitch-class set-class 3-2[013], However, the last two chords have the same figured bass, <9 11>. Feldman frequently constructs chords with identical figured basses in Last Pieces. Two adjacent chords with the figured bass are illustrated in Figure 8b, and another, but non-adjacent, pair occurs in Figure 8c. The figured bass is now <148>, which includes the figures in Figure 8b. This implies that there is pitch-class set-class inclusion relation between the chords of Figure 8c and 8d.

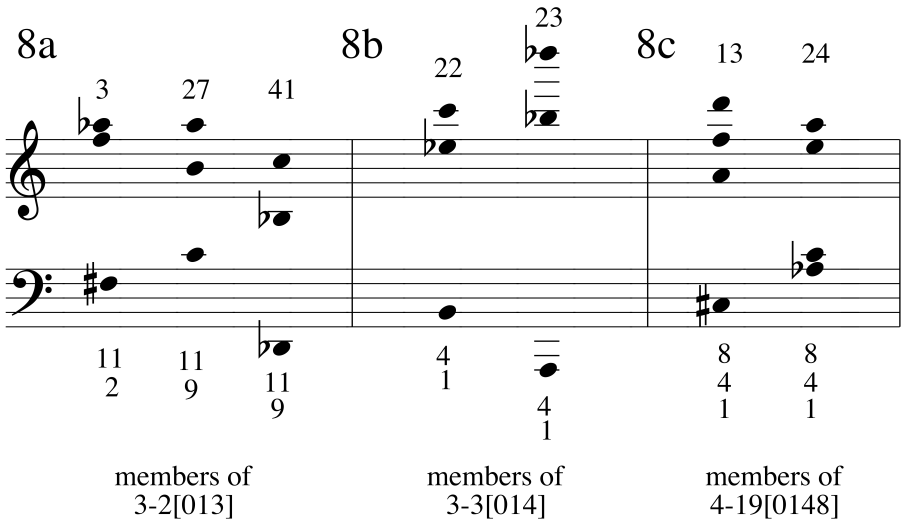

Figure 8: *Figured bass equivalence in Feldman's* Last Pieces *(1959).*

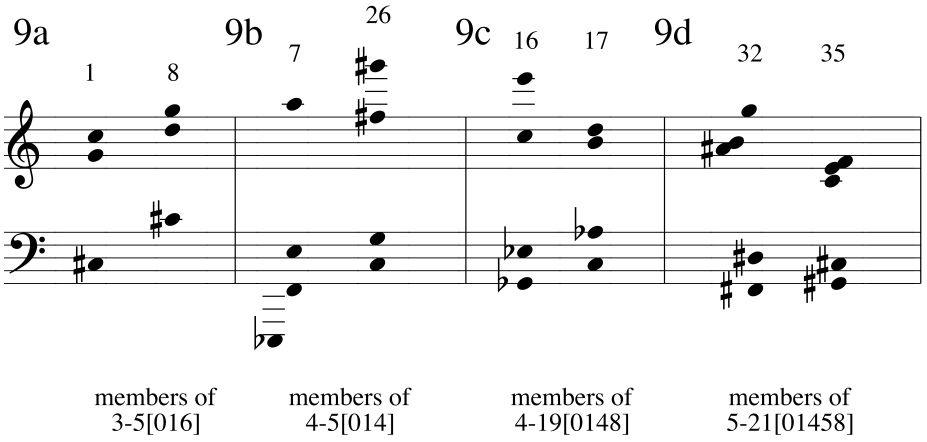

Figure 9: *Pitch-class equivalence in Feldman's* Last Pieces

The relevance of considering pitch-class relations as important in this piece is supported not only by equivalence under figured bass, but the presence of multiple instances of pitch-class set-classes. For instance, the chords #1 and #8 are given in Figure 9a; these are both members of set-class 3-5[016]. It's particularly easy to hear this relation because both chords sustain a perfect fourth over a C♯. Chords #7 and #26 are members of a set-class that contains 3-5. These chords in Figure 9b may sound somewhat different due to the register and order of their pitch intervals from low to high, but they are also similar because they are the only chords in the piece to have the inverse-overtone spacing. Feldman also places two chords from the same set-class adjacently as shown in Figure 9c. And in 9d, the two five-note chords #32 and #35 are of the set-class 5-21.

When we examine all the set-classes in the piece we notice a fairly tight setcomplex structure. See Figure 10. There are two strains of embedded setclasses; those embedded in set-class 5-21 (generalizing ic 4) and 5-38 (generalizing ic 3). These two set-classes are Rp-related. All

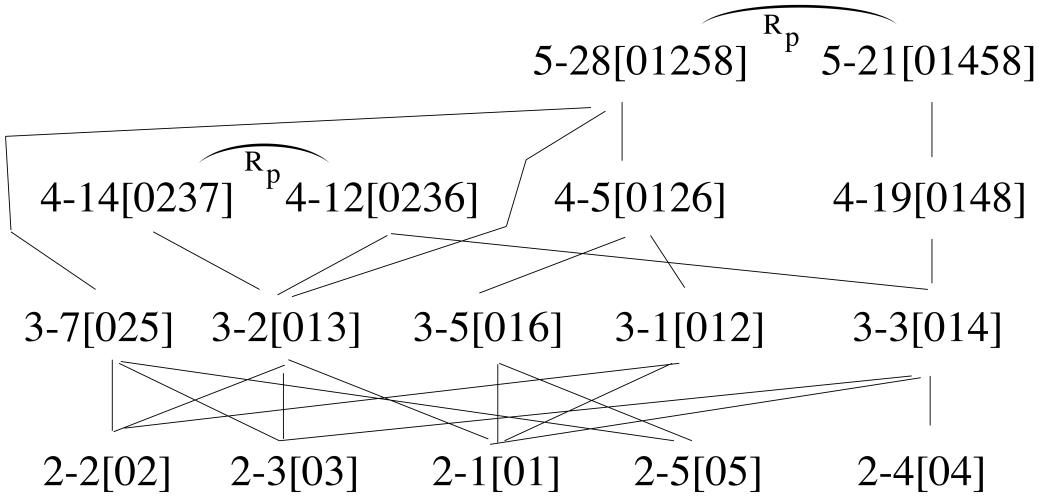

Figure 10: *Set-class network in Feldman's* Last Pieces *(1959).*

the trichordal set-classes are in one or the other strain, while set-classes 4-12 and 4-14 are not. Nevertheless, set-classes 4-12 and 4-14 are Rp-related. It is perhaps significant that the last chord of the piece presents ic 1, for that interval is found within every set-class except 3-7. Ic 1 figures also in the pitch-classes of the prime contour of the piece, a member of the chromatic set-class 5-1, and in chord #36, whose multiply-represented pitch-classes are literally included in the set of the prime.

The success we have had in discovering coherent pitch-class relations suggests that aggregate completion might also play a role in the composition. Looking at the first 8 chords in Figure 2, pitch-class turnover progress rapidly except for few repetitions and the retention of F♮, which occurs in five of the chords. At chord #8, with the introduction of the tone D, all twelve pitch-classes have been introduced. This point of saturation is significant since we noted a strong association of chord #8 with #1 in Figure 9a. Moreover, the D replaces the C in chord #1. A similar advance to the aggregate begins quickly at the opening of the third section with chord #21, but at chord #24 it slows down and halts at #27. The only pitch-class not sounded is D♮, which occurs finally with two C♮ in chord #30 and then by itself in chord #31. The parallel with the opening aggregate progression implicating pitch-classes C and D is remarkable.

Having examined some connections and contrasts between the chords, we return to the question of performance. How should one present the chords to the listener? Since the network of interrelations of the chords is complex, we might just let the music play itself and keep out of its way. But if Feldman wanted this kind of performance he might have noted the piece in traditional rhythmic notation, and there are pieces from the same period that do just this. In Last Pieces Feldman allows room for choice in duration and dynamics, with the compositional proviso that each chord cancels out the previous ones. As I implied above, this suggest that each chord should be played with attention to bringing out its suchness, but not in spite of the other chords, but within their context.

I have shown many ways in which a particular chord is either locally or globally singular and the opposite, how sets of adjacent chords share similar characteristics. One performance strategy would be to highlight the singularities and play down the local connections. But the singularities

do not need performer support; they are "already" singular. It's the local continuities that need to be broken up, so they do not become generic. For instance, chord #4 might be played differently from chord #3, thereby minimizing the shared pitch and pitch-class. (And as I mentioned before, in this case, Feldman's notation suggests this approach.) In contrast, chords #31 and #32 might be played similarly since the move from a single low tone to a middle-range barbell-spaced chord with a grace note dyad is relatively large in the context of the composition. Of course, sticking slavishly or automatically to a strategy of minimizing local continuity would not be in the spirit of responsible performance, where attention must be constantly focused on the moment by moment flow of the piece as one unfolds it with all the resources of piano performance, including timing, voicing, and pedaling. Relying only on habits of performance, traditional or not, will only reveal the lapses of taste that Feldman has so carefully tried to avoid in his compositional method. As in other performance practices, the more one knows about a piece, the more one can bring to do it justice.

References

[1] Feldman, M. and unidentified interviewer (1967) Conversations without Stravinsky. *London Magazine*, 6/12, pp. 86–94.

[2] Feldman. M. Darmstadt-Lecture (1985) *Morton Feldman Essays*, Collected by Walter Zimmerman (Beginner Press, Kerpen, Germany, pp. 84–213.

[3] Feldman. M. (1963) Liner Notes *Kulchure*, 2/6. Liner Notes, Feldman/Brown, Time Records 58007/S8007. pp.57–60.

[4] Feldman. M. (1965) The Anxiety of Art *Art in America*, 61/5, September/October 1973, pp. 88–93.

[5] Feldman. M. (1963) Vertical Thoughts *Kulchur*, 3/9, pp. 88–9.