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“TIME HAS TURNED INTO SPACE AND THERE WILL BE NO MORE TIME”:
THE SCENIC LATE WORKS OF MORTON FELDMAN

by

Matthew Todd Pace

A dissertation presented to the
Graduate School of Arts and Sciences
of Washington University in
partial fulfillment of the
requirements for the degree
of Doctor of Philosophy

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I prefer to think of my work as: between categories. Between Time and Space. Between painting and music. Between music’s construction, and its surface.

—Morton Feldman, “Between Categories”
Chapter 1

I. Defining the Corpus

This dissertation explores ways of hearing and making sense of a certain subset of Morton Feldman’s compositions that I call the long, late pieces (see Figure 1.1), lying roughly between and including the titanic bookends of the first (1979) and second (1983) string quartets. These two quartets and many of the intervening works form a loose family based on several factors, the most obvious of which is length. Not all late Feldman is extremely long, but that is the norm. The first string quartet lasts about an hour. The second lasts about six hours. *For Philip Guston* lasts about four hours. *Coptic Light* and *Why Patterns?*, the shortest pieces in this set of works, still take up a half hour or so. Feldman talked about breaking free of the twenty-minute norm for modern pieces of music. He described the impetus behind the first string quartet as the desire to see “what happens to the form of the music as the length of an ostensibly ‘one movement’ work is extended beyond what was familiar to me.”¹ A bit later in the same essay he discusses the differences between composing these longer pieces versus composing shorter ones that could more easily fall prey to “the cause and effect syndrome which is so indigenous to how we listen to music.”² Feldman saw the longer format as conducive to his vision of a musical form not motivated by progression or development.

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² Ibid., 133.
Another family resemblance among the late, long pieces is one that seems to be a consequence of this great length: dwelling on one idea for a length of time in what I will come to call a “scene.” Again, not every late Feldman piece follows this “scenic” trend, but the norm is for patterns of sounds to repeat, usually with variations (“crippled symmetries,” as he called them), for anywhere from a few seconds to several minutes.\(^3\) This seems to be part of Feldman’s modus operandi for letting the sounds “be themselves” rather than rushing through them or moving from one to another with a progressive sort of rhetoric.\(^4\)

Finally, the late long pieces tend to be notated exactly in time and pitch, as opposed to the graphical notation used in Feldman’s earlier music and the free rhythms used in some of his works immediately before the late period I am considering. At first glance, the exact notation used in these late works is often extremely confusing. Shifting meters and strange tuplets abound. On a more thorough look, it becomes clear that often the written meter is not actually conveying a hearable division of the beat at all, as the tuplets tend to blur the meter into inaudibility. It is a strategy purposely designed to keep the notes “floating.” A desire for imperfection motivated Feldman’s turn away from freer forms of graphic notation. In giving performers freedom to choose exact pitches within registral and durational confines, Feldman hoped that performers would use that freedom to make “errors,” unevennesses, and avoidances of perfect symmetry. However, he came to realize that “liberating the performer” resulted in performances with much more

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3 When Feldman titled a 1983 piece for flute, piano, and percussion *Crippled Symmetry*, he made explicit reference to his chief compositional preoccupation over the last decade of his career.

4 Allowing the sounds to “be themselves” is an idea Feldman shared with his friend and colleague John Cage, who used the expression in an essay on Henry Cowell in *Silence* (1961), p. 71.
regular rhythms than he desired. His return to strict notation, then, can be thought of as a way of composing the types of imperfection he had hoped to create with the freer notation encountered in many of his earlier works.

The three defining characteristics of the long late works, great length, the use of repeated or partially repeated patterns, and the breaking up of the musical surface into clearly delineated “scenes,” appear in various combinations in Feldman’s other music. While he wrote some long pieces earlier in his career, they are not as pattern-based as the later ones. On the other hand, there are plenty of shorter late Feldman pieces in which the ideas I explore here are evident, but either do not have time to unfold (such as the 1986 A Very Short Trumpet Piece), or unfold in a much more condensed manner (for example, the 1987 radio play Samuel Beckett, Words and Music). In addition, there are works for larger forces in which the sonic landscape exhibits patterns but does not parse into individual scenes (such as the 1985 orchestral work Coptic Light).

Though these long and repetitive pieces might easily be described as tedious or boring, I find them dramatic and exciting and find myself on the edge of my seat waiting to see where the next minute will find me. I am not alone. Listeners who take the time to enter the sound world of Feldman’s long, late pieces tend to feel a sense of awe and wonder that is difficult to describe. This dissertation is an attempt to discover the source of that awe and wonder.

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5 “Liner Notes,” in Give My Regards to Eighth Street, p. 6.

In the next section of this chapter, I shall review pertinent academic literature that deals directly or indirectly with the late works of Feldman, with a special focus on the work of Dora Hanninen. I then turn to the idea of Feldman as a “painterly” composer, exploring ideas of how the art of his friends and colleagues informed his compositional practice and aesthetics. In part IV, I introduce stylistic features that distinguish the music of Feldman from that of several early minimalist composers. I narrow my focus to Feldman’s later music in part V, where I explore the problem of attention in listening to late Feldman. Finally, in part VI, I describe my analytical methods and their role in developing the ideas in this dissertation.

II. Analytic Approaches

Although the late Feldman pieces have seen a significant increase in performances since his death in 1987, analyses have been relatively scarce. Musicological and historical literature on the New York School abounds, as do critical works on the New York School painters, sculptors, and writers. Why, then, is there a scarcity of literature on the late music of Feldman? I believe it is due to the many obstacles in discussing his long, late pieces.

Earlier Feldman pieces, too, are difficult to describe. Catherine Hirata has written persuasively and eloquently on Feldman’s early music, which, though it lacks the grand
scale or the focus on patterns, still proves quite resistant to conventional analysis.\(^7\) Her approach to Feldman’s mid-career piano music involves tracking down what she calls the “touch” of each sound event. Hirata pursues the concept of “the sound of the sounds themselves” in great detail, trying to get at what it is about a sound extracted from a Feldman piece that is the same as or different from that sound when heard in its place within the piece. This is quite difficult, because she insists the focus must remain on the quality of the sound \textit{in} context, not the quality of the sound \textit{and} the context.\(^8\) Hirata conceives of each sound-event as an individual object infused with context, rather than as a node in a matrix of contextual relationships. Feldman’s putting sound-events in a certain order, according to Hirata, “might be the means largely—or even, \textit{only}—of conferring qualities on each of the individual elements of the succession.”\(^9\) Hirata is thus able to address context, but not in the usual way it is used in music analysis. Instead, she thinks of “how the relations function when they’re not doing the usual compositional rhetoric job, when they’re not providing the usual patterns and progressions for which we make the effort of taking in sounds together.”\(^10\) By considering individual sounds as imbued with context, we can make all the relational observations we wish while still keeping “the locus of the music’s expressivity” firmly located within the sounds themselves.\(^11\)

\(^7\) Hirata (1996), pp. 6-27.
\(^8\) Ibid., p. 9.
\(^9\) Ibid., p. 12.
\(^10\) Ibid., p. 11.
\(^11\) Ibid., p. 13.
Hirata’s approach works well on the smallest scale, with regards to a brief succession of sound-events where context can be neatly tracked. But when we come to the long, late pieces, we are overwhelmed by context. It becomes difficult to say how much we can remember from one sound-event to the next. Feldman also challenges our ability to organize even relatively brief passages by thwarting our desire to hear symmetries and exact repetitions (by “crippling” them) while at the same time giving no hints as to how we might fit events into some sort of hierarchical structure in which one might be heard as more important or more structurally “deep” than another. Composer and theorist Wes York, borrowing a term from Rauschenberg and Cage, calls this lack of clear hierarchical organization the “all-over.” He explores both the all-over and crippled symmetries in his analytical essay on Feldman’s 1982 piece For John Cage.12 Through an extremely detailed analysis of the first section of the piece, York traces crippled symmetries at the level of individual sound-events, through smaller-scale segments he terms gestures, patterns, sub-phrases and phrases, and finally in larger-scale segments he terms sub-groups and groups, subsections and sections, and parts. At each level we find symmetrical patterns slightly disturbed. The resistance to symmetrical hearings at each level, argues York, results in the sort of perceptual “unfocus” that is a hallmark effect of the all-over in art or music.13

The sense of the all-over is also to be found in Jonathan Kramer’s idea of the “moment,” a term he adapted from Stockhausen and which partially overlaps with what I

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13 Ibid., p. 147.
call the “scene” in late Feldman.14 Moments take place in “moment time,” a sort of time sliced into non-progressive, non-relational sections that act as longer presents. Within the moment, one feels no beginning, no ending, no direction, and no goal. Moment forms are made up of multiple moments one after another, but giving the impression that each moment-to-moment move is arbitrary. Each moment is necessarily placed in a temporal succession, but this succession confers nothing of a sense of development or progression. Moment forms “verticalize one’s sense of time within sections, render every moment a present, avoid functional implications between moments, and avoid climaxes.”15 The seemingly arbitrary relationship among individual moments and their apparent equality in importance make pieces in moment form resistant to hierarchical formal interpretations.

According to Kramer, “the self-containment of moments is provided either by stasis or by process.”16 Feldman, however, wanted to find space between such categories as stasis and process in his late works: in even the most glacially paced scenes we find just enough movement and unpredictability to rule out stasis as a moment-forming technique, while in more active scenes we find that Feldman’s imperfect patterns challenge our notions of process.

In much tonal and atonal music, the listener’s experience of time at the macro level is shaped by the way time is experienced at the micro level. Hearing a first theme


16 Ibid., p. 207.
group in a sonata, for example, gives the listener a sense of how long the other sections might be. Hearing just an antecedent phrase, the listener can make a reasonable guess at the length and location of its consequent. The entire time of the piece is mapped out by these sorts of temporal relationships. In moment forms, nothing about the small-scale experience of time informs the listener’s interpretation of large-scale time. And because expectation and fulfillment alike are thwarted at every turn, argues Kramer, moment forms cause listeners to give up on hearing in terms of beginnings, endings, and goals. The listener, according to Kramer, instead resorts to hearing in terms of proportional relationships between sections in linear time. That is, without ideas like phrase or row presentation to shape the temporal experience, all the listener is left with is time itself.

Without other structures with which to organize one’s sense of time, Kramer explores the impact of proportional comparisons of the lengths of each moment. He finds examples of proportions such as the golden section and the Fibonacci series in the works of Stravinsky and others. Again, however, Feldman’s long, late works resist this listening strategy because of their great length. While it is possible to imagine the sort of proportional listening Kramer describes in pieces that are twenty minutes or less, I find it difficult to imagine keeping track of proportions over the course of an hour or more.

The only music theorist who has written at length on late Feldman is Dora Hanninen. She offers a compelling reason why analyses might be so scarce:

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Now more than fifteen years after Feldman’s death, one might well ask why theorists and analysts haven’t produced more work on Feldman’s music. I think the answer is complex, but largely reflects real musical and conceptual issues, not ideological difficulties.\footnote{“Feldman, Analysis, Experience,” pg. 226.}

Hanninen goes on to identify two major issues facing analysts of late Feldman: scale and repetition. She offers her own solutions to these problems in each of her writings dealing with late Feldman. As a whole, her work is the closest we have to a “theory” of late Feldman music. Taking its cue not so much from music theory as from Gestalt psychology, Hanninen constructs her theory from the ground up. Building upon a basis of perceptual principles such as proximity and similarity, and incorporating work on aural perception from writers such as Bregman, Hanninen presents a compelling technique for segmenting complex pieces of music.\footnote{Albert Bregman, \textit{Auditory Scene Analysis} (1990).} Hanninen’s body of work on Feldman deals with the music from a number of perspectives, starting with segmentation, moving through ideas of recontextualization and “estranged repetition,” and finally to new ways of thinking about repetition in terms of populations rather than individuals. In what follows, I shall analyze a single passage from Feldman’s \textit{Patterns in a Chromatic Field} using Hanninen’s theoretical apparatus. By doing so, I hope to illustrate what is currently the most complete analytical approach for late Feldman and to reveal what I perceive as the musical issues in late Feldman that elude this approach. This will provide a backdrop for the new ways I have developed to describe the enigmatic long, late pieces.
Hanninen’s theory of segmentation and its application to a variety of musics can be found in her 2001 article “Orientations, Criteria, Segments: A General Theory of Segmentation for Music Analysis.” Figure 1.2 provides an overview of the theory.

Hanninen identifies three domains in which analysts might divide the flow of musical sounds into comprehensible segments. In the sonic domain, analysis relies on finding breaks between segments (disjunctions) along the dimensional lines of “primitive” sonic (S) criteria such as pitch, duration, dynamics, and so forth. Hanninen distinguishes between $S_1$ criteria, which apply only to temporally adjacent events, and $S_2$ criteria, in which dimensions such as pitch can be examined without regard to temporal ordering (for example, all the pitches that take place in a given segment can be ordered from lowest to highest, regardless of their temporal position). In each case, the analyst notes disjunctions which then form the boundaries for potential segments.

In the contextual domain, it is not disjunctions between but associations among segments that come into focus. Contextual (C) criteria rely on the repetition of some aspect of an event or series of events in order to confer segment status. Hanninen also describes a third domain, in which theoretical considerations lead to the application of structural (T) criteria based on some body of pertinent “theoretical” work (e.g., twelve-tone theory, Schenkerian theory, neo-Riemannian theory). No such theoretical orientation yet exists for late Feldman, and indeed may never exist, given the active way this body of music resists creating entities that enter into relations described with such theory (such as row segments or linear progressions).
Segmentations based on sonic disjunction or contextual association are further divided by Hanninen into genosegments and phenosegments. Genosegments are partial segmentations that result from the application of a single S or C criterion. They are potentially audible, but may be effectively overridden by a preponderance of conflicting criteria in other sonic dimensions or by contextual groupings. By compiling and comparing the genosegments produced by various S or C criteria, the analyst can arrive at a set of phenosegments. Phenosegments are readily audible segments that require either one quite strong criterion or, more often, a convergence of several criteria in defining the same segmentation.

To illustrate Hanninen’s approach, I want to look at an early scene from Patterns in a Chromatic Field, shown in Figure 1.3 (CD Track 1 on the enclosed compact disc). I will begin with the criterion of timbre. While most of Hanninen’s sonic criteria are scaled so that one can measure and compare intervals along each dimension, she does allow for one purely nominal dimension, that of timbre. For while actual timbral space is most likely multidimensional, we do not measure it in the same way we measure pitch or time. The best one can do is to create simple nominal spaces of timbre (“cello,” “piano”) and use them to say whether the timbre of one note is the same as or different from the timbre of the preceding note. Applying the S₁-timbre criterion to the passage in Figure 1.3 in effect tracks the moment-to-moment changes in timbre. Figure 1.4 represents the passage as a sequence of events (E) and indicates whether adjacent events match (=) or do not match.

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20 As so much of my dissertation relies on aural material not readily visible in the score itself, I urge the reader to listen to each example on the attached compact disc. Listening to some portion of Patterns in a Chromatic Field is also recommended.
In timbre. The brackets indicate the resulting genosegments. With each of Hanninen’s criteria, it is important to conceptualize the passage in question only to the extent that the active criterion applies. In this case, it means thinking of each sonic event as simply a neutral event and not yet as the cello or piano notes that I intuitively identify, i.e., the $S_1$-timbre criterion cannot be used to form classes of timbre. For convenience, I have broken the scene up into five groups, but it must be kept in mind that each individual $S$ criterion is not informed by others at the genosegment level. In Figure 1.4, for instance, timbral groupings of adjacent events cannot be said to be any different within a measure or between measures from the point of view of $S_1$-timbre; hence the segmentations that stretch from the last event of the first four lines to one of the first events of the next line must be retained at the genosegment level. Later, when we have derived phenosegments supported by several criteria, there will be numerous reasons to note what clearly strikes the eye and ear as disjunctions between these five groupings.

Our analysis will be the richer if we can look at other $S_1$ criteria not only as they arise in the sequence of events but also as they arise in each instrument separately. To do so we need to skip ahead to an atemporal timbral criterion in the $S_2$ domain. Adopting Hanninen’s language, I call this criterion $S_2$-timbre, since it sorts sonic events into sets of matching timbre without regard to their temporal relationships. Though timbre cannot be scaled like pitch and dynamics, in the present passage it is easy enough to imagine a segmentation into exactly two nominal timbral spaces we might call cello (C) and piano (P). This segmentation is shown in Figure 1.5. Since it will prove useful later, I have numbered each cello and piano event.
Figure 1.6 reinterprets the $S_1$-timbre segmentation of Figure 1.4 in light of the atemporal $S_2$-timbre criterion that produced Figure 1.5. As I continue with the segmentation analysis, I will explore sonic criteria both within the individual timbral segments (piano and cello) as well as in the timbrally undifferentiated sequence of events.

Hanninen’s most primitive sonic criterion is $S_1$-adjacency, which simply makes segments of notes that are temporally adjacent to one another and does not make segments of notes that are disjunct from one another. Within each timbral group, the application of $S_1$-adjacency is quite straightforward: each pair of notes $C_1-C_2$, $C_2-C_3$, ..., is grouped together by adjacency. In looking at nothing but adjacency itself, we are forced to connect $C_7$ to $C_6$, and $P_7$ to $P_6$, despite the long time interval separating them, and likewise across each of the empty measures of the passage. The resulting genosegments can then be understood as each pair $\{P_x-P_{x+1}\}$ and $\{C_x-C_{x+1}\}$.

The criterion that allows us to follow the visually and aurally clear disjunction between each sounding measure is $S_1$-rest. The $S_1$-rest criterion quite simply marks disjunctions between events separated by silence. $S_1$-rest creates boundaries between $C_6$ and $C_7$, $C_{12}$ and $C_{13}$, $C_{18}$ and $C_{19}$, $C_{24}$ and $C_{25}$, as well as between $P_6$ and $P_7$, $P_{12}$ and $P_{13}$, $P_{18}$ and $P_{19}$, and $P_{24}$ and $P_{25}$ (see Figure 1.7). The result is either five genosegments (without taking into account the $S_2$-timbre segmentation into cello and piano) or ten genosegments (five for each timbral group, if we take the $S_2$-timbre segmentation into account). Each genosegment coincides with a notated measure in the score and is separated from the next genosegment by a blank measure.

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21 The fact that the piano’s empty measures are still sounding due to the damper pedal will be taken up with regards to $S_1$-dynamics.
Another look at S1-adjacency, this time taking into account the S2-timbre segmentation, gives us a first glimpse of the deeper complexity in this seemingly simple passage. As the dots and double dots change the length of each note within each instrument, the pairings of adjacent (consecutive) events fluctuate over each sounding measure. Careful reading of Figure 1.8 reveals that the same sequence of C and P events within a non-blank measure is never repeated. These genosegments often pair notes of different timbres, in conflict with the within-timbre adjacency pairings \( \{P_x-P_{x+1}\} \) and \( \{C_x-C_{x+1}\} \).

Figure 1.8 also illustrates the S1-attack criterion, which groups notes that share an attack point. Applying the S1-attack criterion results in the pairs C1-P1, C7-P7, C13-P13, C19-P19, C25-P25, and, less obviously, C17-P17 and C27-P27. Note that while it is easier to speak of these genosegments as pairings, like all sonic criteria the pairings are not connected by association but by disjunction from their surroundings. In this case the disjunction is that between simultaneous notes and nonsimultaneous notes within the flow of adjacent events.

Another sonic primitive is S1-duration, a criterion in which the durations of adjacent events are compared. Since the real-time placement of each note is hard to discern from the score, I have laid out the passage schematically in Figure 1.9 by drawing the notated rhythms to scale along a horizontal time axis. Within each sounding measure (without regard to timbral segregation) intervals between attacks range in duration from 0 to 6 thirty-second-notes. These short durational intervals contrast sharply with the interval of 24 thirty-second-note intervals between each sounding measure, a fact which tends to group the passage into the same five segments arrived at through S1-rest. The disjunctions
created by the blank measures are indicated “//.” While these disjunctions are easily perceived, I find it difficult to assess the degree to which simultaneities are disjunct from attacks that are separated only by one or two thirty-second-notes. As I will discuss below, such short intervals between attacks have a tendency to blur the line between what is and is not a simultaneity in heard experience.

While not specifically discussed by Hanninen, one of the simplest ideas of pitch that we can study in the $S_1$ realm is pitch direction between adjacent events, a criterion I will call $S_{1\text{-direction}}$. Disjunctions described by $S_{1\text{-direction}}$ are caused by changes of direction without regard to overall contour. That is, only the direction between adjacent notes is compared, and when the direction differs from the previous direction, a disjunction is marked (see Figure 1.10). $S_{1\text{-direction}}$ disjunctions are marked within each timbral group in Figure 1.10a. The cello and piano share a disjunction after the sixth and final note of each sounding measure, again aligning precisely with the disjunction formed by $S_{1\text{-rest}}$. In addition, the cello has disjunction caused by its leap downward after the third note of each sounding measure and the ensuing change back to upward motion. The location for this break in the sonic surface is not repeated in any other $S_1$ criteria, but will play an important role in both the $S_2$ criteria and the contextual (C) criteria below.

Across the timbrally undifferentiated texture as a whole (Figure 1.10b), $S_{1\text{-direction}}$ disjunctions are scattered in a less predictable fashion, with the exception of the pair of disjunctions caused by the ever-present directional change between the last note of each sounding measure and the first note of the next sounding measure. The fourth sounding
measure stands out as particularly jagged when compared to the second and third sounding measures, both of which include longer stretches of rising events.

Figures 1.11 and 1.12 illustrate the $S_{1\text{-pitch}}$ criterion within the two instrumental segments and within the timbrally undifferentiated sequence of events, respectively. In tracking moment-to-moment changes in pitch within each timbral group (Figure 1.11), one sees only a small amount of variation in intervals between adjacent pitches within the sounding measures, in contrast to the interval between the final note of each sounding measure and the first note of the next sounding measure: within each sounding measure, notes are separated by eight to thirteen semitones, while the final note of one measure and the first note of the next are separated by more than twice that in the cello and more than four times that in the piano. The resulting disjunctions create precisely the same ten genosegments as those arrived at via $S_{1\text{-rest}}$.22

Leaving timbral segregation aside, however, results in a far greater variance in pitch intervals between adjacent notes (see Figure 1.12). While the intervals between the last and first notes in adjacent sounding measures are still the largest (especially those pairs whose first member is the final piano note of each sounding measure), there is a far greater range of intervals within the sounding measures (four to twenty-seven semitones) and less contrast with the intervening intervals across non-sounding measures (twenty-eight to forty-nine semitones). With such wide variation in pitch intervals between adjacent notes, it is difficult to say where disjunctions occur and hence which segments are formed by the $S_{1\text{-pitch}}$ criterion. One possible solution is to take a more local look at

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22 Note that in measuring pitch intervals I have, for now, assumed enharmonic equivalence (e.g., between B# and C).
pitch changes that seem much higher than those immediately preceding or following them. In Figure 1.12, I have marked disjunctions (//) below intervals of twenty or more semitones as a somewhat arbitrary cut-off line of what may count as a disjunction-causing magnitude for a pitch interval. Note that most of these potentially disjunction-causing intervals involve either the fourth cello note of each sounding measure (which is the first to disrupt the otherwise rising contour of the cello) or the final piano note of each non-rest measure (a disjunction that will be reinforced by the atemporal \(S_2\)-pitch criterion).

Hanninen’s final \(S_1\) criterion deals with changes in dynamics between adjacent notes. Though not shown in the passage as reproduced here, the piano and the cello are both marked \(p\). On the recordings I have heard, the volume of the piano and the cello in single-note passages like this one are comparable, though I have never heard the piece performed live. A strict dynamic analysis would reveal no disjunctions at all. However, a closer look at \(S_1\)-dynamics does raise another question: how are we to assess the dynamic relationship between sounds with quite different envelopes? In the passage at hand, the attacks and immediate decays of both the piano and cello are quite similar as far as dynamics go, but as the cello pizzicati quickly fade away, the piano notes continue to sustain. Again, the score fails to make this obvious, but the piano is never silent after its first note, and in fact builds up resonance over the course of the passage as the pedal remains down. One way we might deal with this problem is to separate the \(S_1\)-dynamics analyses for the attacks and for the sustains of each note. As mentioned above, the attacks...

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23 The arbitrary cut-off line for disjunction-causing pitch differences points up an inconsistency in Hanninen’s theory with regard to the \(S_1\)-pitch criterion: one must derive an idea of disjunction-causing magnitude either from an absolute standpoint, suggesting the encroachment of a structural (T) criteria, or from a relative standpoint (comparing pitch differences across the passage in question), suggesting the encroachment of an atemporal \(S_2\)-pitch criterion.
are quite similar in volume for every piano and cello note. Since the cello notes
disappear, and the piano notes endure, an S₁-dynamics view of just the body of each sound
creates the same segmentation by instrument as that created by the S₂-timbre criterion.

The S₁ criteria discussed above dealt with segmentations that take place through
disjunctions in time, whether in time alone (S₁-adjacency, S₁-rest) or in another scalable
dimension as it changes from moment to moment (S₁-attack, S₁-pitch, S₁-duration, S₁-dynamics).
Certain segmentations arrived at through S₁ criteria were the same as we might get with a
routine, “common sense” view. Just the quickest glance at the score, for instance, reveals
that we would be likely to segment the passage into its five sounding measures, or into its
two instrumental parts. On the other hand, the complexities of S₁-adjacency and even
S₁-attack are quite difficult to tell from the score alone. The overall picture generated by the
S₁ segmentation is of two clearly differentiated instruments taking part in five segments of
notes. Within each segment the order of events within each timbral group remains fixed;
however, the order of timbrally undifferentiated events varies considerably.

I turn now to the S₂ criteria. These criteria provide an opportunity to examine
relationships in the same sorts of scalable dimensions described by S₁ criteria, but now
without regard to their temporal order. I will continue to consider these criteria within
the timbral groups of cello and piano and also within the timbrally undifferentiated series
of events, beginning with the S₂-pitch criterion. In Figure 1.13, I have arrayed the pitches
of the cello and the piano from lowest to highest.²⁴ Since temporal order is not a factor,
we may ignore repetitions of the same pitch. While no stark disjunctions arise within

²⁴ I will again assume enharmonic equivalence between, e.g., B# and C.
such an array, the new order of cello notes does reveal some weaker possible pairings of notes that, compared to their counterparts, are closer together in pitch.\(^\text{25}\) Pairs C4-C2 and C5-C3, at two and three semitones apart, respectively, are much closer than any other pair of pitches within the cello’s or the piano’s set of notes. This suggests that while the piano’s notes remain separate, the cello’s notes clump together toward the middle of their overall register. All the pitches in the passage are arrayed from lowest to highest at the bottom of Figure 1.13 regardless of timbral group. The result at first glance is a series of relatively close pitches (separated by one to seven semitones), except for the final piano note, whose larger interval from the next-highest note creates a sonic disjunction. A closer look reveals a few other possible pairings between notes that are one, two, or perhaps three semitones apart, as well as a more local disjunction between C2 and P3. These more subtle pitch disjunctions are not as strong as that between the final piano note and the rest of the pitches in the passage. However, this disjunction itself does not stand out in the piano alone, but only when the cello and piano are experienced as equals in the pitch realm.

Duration can also be separated from the flow of temporal succession and examined without regard to sequence. The S\(_2\)-duration criterion yields three duration classes: eighth, dotted eighth, and doubly-dotted eighth. In each sounding measure we find two notes of each duration class. That is, in each sounding measure of both the piano and the cello there are two eighth notes with no dots, two with single dots, and two with double dots. However, the notated durations are a bit misleading. The piano’s

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\(^{25}\) Again, it is easier to speak of pairings but the actual mechanism of sonic segmentation is understood to be a disjunction on either side of the pairing.
damper pedal is depressed the entire time, so the piano notes continue to sustain throughout the passage, whereas the cello notes die out between attacks. The difference between the two instruments’ envelopes is especially evident in the empty measures, where the cello falls completely silent while the piano sustains all six of the notes it played the measure before. Instead of using $S_2$-duration to think about notated values, we can apply it to the time that elapses from attack to attack. From this perspective, there is a major disjunction in duration between the final note of each sounding measure and every other note. This disjunction overlaps with that revealed by $S_1$-pitch and $S_2$-pitch in their timbrally undifferentiated applications. In both cases the segmentation highlights how much higher the final piano note of each sounding measure is compared to its immediate ($S_1$) and less immediate ($S_2$) predecessors.

We might ask whether the permutations of duration classes in the passage show any sort of pattern. We can represent each class by the number of dots attached to each eighth note: 0, 1, or 2. We need not worry about the sustain of the piano’s final note in each measure, because it so happens when dealing with the various permutations of two eighths, two dotted eighths, and two doubly-dotted eighths, the sixth and final note of each group is pre-determined by the first five. That is, with the limitation that there must be two of each duration class per sounding measure, the sixth and final such class is already decided by process of elimination when we get to the fifth. Figure 1.14 lists the ninety possible permutations of \{0,0,1,1,2,2\}. The ten permutations that actually appear in the passage are shown in bold. We can make a few generalizations: Feldman never repeats the same distribution of dots in a measure. He seems to have preferred measures

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to start with shorter notes (five start with undotted eighths, four start with dotted singly
dotted eighths, and only one starts with a doubly dotted eighth). In all but one measure,
Feldman has chosen permutations in which at least one duration class appears twice in
succession. These observations add nothing to the segmentation of the passage, but they
do illustrate the immense variety available within the seemingly simple idea of adding one
or two dots to a single note value and Feldman’s avoidance of working through
permutations of series in a logical, process-oriented manner.

Contextual criteria form the second tier of Hanninen’s theory of segmentation. Whereas sonic criteria deal with disjunctions in one or more “primitive” dimensions of sound, contextual criteria deal with associations between literal repetitions or near-repetitions of some defined content. As I did with Hanninen’s list of sonic criteria above, I will apply each of her contextual criteria to the passage at hand in order to discover what segmentations and groupings become apparent. Once again I find it useful to look at each criterion both within the timbral groups of cello and piano and across the timbrally undifferentiated series of events; however, the focus on association rather than disjunction often renders the timbrally undifferentiated view unnecessary.

The contextual criterion \( C_{cseg} \) associates segments which share a pitch contour (see Figure 1.15). Within timbral groups, we find the cello \(<024135>\) and the piano \(<012345>\) both repeating a contour segment \( (cseg) \) in each sounding measure, reinforcing the sonic segmentation into five instances found most powerfully with regards to \( S_1\text{-rest} \). This view of contour tells us very little, however, since in this case the cseg lines up precisely with the pitches. That is, the pitches in each segment do not change, so noticing
that the contours also do not change does not provide any new information. The cseg criterion becomes useful if we tighten the focus and look at three-note segments. Taking the break in contour of each sounding cello measure as a cue (a segmentation suggested by the sonic disjunction discussed above with regard to $S_1$-direction), we could describe the cello as being made up of two $<012>$ csegs. The same description would fit the piano as well, though in the piano’s case no sonic criteria support such a segmentation. No associations seem to arise, however, when the piano and cello are taken together. The bottom row of Figure 1.15 shows the five csegs when $C_{cseg}$ is considered between both timbral groups.

Figure 1.16 depicts associations defined by three more contextual criteria: $C_{ic}$, $C_{int}$, and $C_{ip}$. The $C_{ic}$ criterion compares segments by shared interval class. Here we find quite a bit of shared content in the cello and piano. They each contain one or more instances of interval classes 9, 10, and 11. For a more detailed view of interval, we can look at the $C_{int}$ criterion, which takes the ordered series of interval classes into account. Here we find that the ordered interval pairs $<9,11>$ and $<10,11>$ are found in both the piano and cello. Further support for this association comes with the $C_{ip}$ criterion, which takes the direction of the pitch intervals into account. Note that this association by interval mirrors the $C_{cseg}$ grouping into two trichords for the cello and piano. In the cello, sonic criteria support this grouping as well. And although there are no sonic criteria to support the trichord grouping in the piano, it would seem that contextual criteria are

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26 Once again I remind the reader that for the time being I will take enharmonic spellings as equivalent with respect to pitch-class.
beginning to converge and point to a segmentation in which we can hear the piano’s six
notes as divided into two groups of three, if we so desire.

Before I finally turn to issues of pitch, I should mention the rest of Hanninen’s
contextual criteria, though they do not play a part in the present analysis. C\textsubscript{dseg} expresses
associations between duration contours. The dsegs in the passage at hand are already
expressed in Figure 1.14, because the dot counts happen to line up precisely with a proper
dseg notation for each sounding measure within each timbral group. As already noted,
no patterns are repeated, and thus no associations can be made in the contextual realm
with regards to duration contour. Hanninen also offers a contextual criterion C\textsubscript{dyncseg},
associating segments which share a dynamic contour. Since the dynamics are constant in
this passage, C\textsubscript{dyncseg} is trivial. In addition, Hanninen includes contextual criteria for
associating segments related in the realms of pitch, interval, pc interval, and pitch
segment under inversion, retrograde, and retrograde inversion. None of these operations
or relationships aid in our understanding of the passage at hand.

In Figure 1.17, I turn to the contextual criteria of pitch and pitch-class. A close
examination using several approaches to pitch shows the complexities of how the cello
and piano compare in the realm of pitch. The C\textsubscript{p} criterion compares both unordered
pitch sets and ordered pitch segments. In either case, there is no overlap between the two
instruments. The question of enharmonic equivalency is not raised with regards to C\textsubscript{p},
because registral differences keep enharmonically “equivalent” pitches across timbres
removed by one or more octaves. However, we finally confront the enharmonic spelling
issue in connection with the C\textsubscript{pc} criterion, which considers the pc sets for each instrument.
The enharmonic differences are swept under the rug by the analytical apparatus for the pitch-class set, because each pitch is converted to a whole number between zero and eleven with no allowance for fractional values. This is a serious shortcoming, as will be discussed below. But for now I shall accept the usefulness of glossing over microchromatic differences and note that in the traditional view, the pc sets of the cello and piano overlap completely.

Looking at ordered pc segments, however, the two six-note segments do not overlap. One could imagine a structural criterion $S_{\text{rot}}$, which describes relationships among pc segments using the serial concept of rotation. Such a criterion could pick out the relationship between the two six-note sets as the third rotation. However, as mentioned earlier, serial or other theoretical frameworks are largely irrelevant to the study of pitch in Feldman’s late works, so there is no compelling reason to invoke them here. We can, however, increase our relational understanding of the two six-note segments by breaking them into their component trichords, which do overlap, coinciding with associations found with regard to the $C_{\text{cseg}}$ and $C_{\text{int}}$ criteria as well as with segments formed by $S_{1\text{-direction}}$ disjunctions. We could also take the final step of reducing the pc set to a set class, with criterion $S_{\text{sc}}$. Here all pitch differences between the two instruments are subsumed in describing each as an instance of set class 6-14 [013458], made up of the two trichords 3-2 [013] and 3-3 [014].

What do all the above genotype segments add up to, and how can it help the listener articulate an understanding of the passage? Using her segmentation theory as a backdrop and first step, Hanninen offers a path for analytical application to Feldman and
others in her 2003 article “A Theory of Recontextualization in Music: Analyzing Phenomenal Transformations of Repetition.” Here, Hanninen presents a simplified version of her segmentation theory, arriving at what she calls “ideas,” a subset of what she calls “phenosegments” in her theory of segmentation. Ideas are sets of one or more contextual criteria that manifest in “instances.” Tracking how the ideas change from instance to instance gives us a better understanding of recontextualization, or as Hanninen puts it, “estranged repetition.” She describes three ways an idea can be recontextualized. First, there can be a change in the active contextual criteria defining the idea. Second, there can be a change in the boundaries of the segment. The third means for recontextualization, a change in structural interpretation, does not apply to late Feldman for the same reason that structural (T) criteria did not apply in the segmentation analysis—there simply is no existing theoretical system that applies to Feldman’s late work.

In order to look at recontextualization in the passage, we need to decide what are the clearest phenosegments that emerge from our earlier analysis. The most compelling segmentations are those that are supported by the greatest number of criteria. In Figure 1.18 I illustrate the phenosegments I find most compelling, along with their supporting sonic and contextual criteria. I have shown only the phenosegments for the first sounding measure; the other measures would produce the same phenosegments. The phenosegments are the sounding measure as a whole, the division of each sounding

measure into a hexachord in each instrument, and the further division of each hexachord into two trichords.

The first of these phenosegments, that which divides the passage into its five sounding measures, I take to be the field where recontextualization plays out. If the theory is to have any descriptive power, it will have to help model the experience of how I hear the other phenosegments (the hexachords and the trichords) in the different context of each sounding measure. Following Hanninen’s orthography and descriptive naming, we might describe the cello hexachord as

$$\text{STAGGER} = \{C_{p<Fb2,Ch3,C#3,Gx3,B#3,Ab4>}, C_{cseg<024135>}, C_{pc\{01489E\}}, C_{sc6-14 \{013458\}}\},$$

and the piano’s hexachord as

$$\text{SPREAD} = \{C_{p<B1,A2,G#3,E4,Db5,C6>}, C_{cseg<012345>}, C_{pc\{01489E\}}, C_{sc6-14 \{013458\}}\}.$$  

However, in defining the hexachords this specifically, the theory fails to show any effects of recontextualization. That is because both \text{STAGGER} and \text{SPREAD}, as defined above, retain the same active contextual criteria and the same segment boundaries across each of their five instances.

Note that \text{STAGGER} and \text{SPREAD} are themselves quite closely related, and we might consider them both instances of a less specific idea that we might call

$$\text{HEX} = \{C_{pc\{01489E\}}, C_{sc6-14 \{013458\}}\}.$$  

Doing so gives us the opportunity to hear the recontextualization of the idea, because now we can compare segment boundaries for the four instances of \text{HEX} (see Figure 1.19). Over the course of the passage, we might begin by hearing a cello \text{HEX} and a piano \text{HEX}, with the segment boundaries defined by $S_{2\text{-timbre}}$ disjunctions (the two instances of \text{HEX}
circled in dashed lines). However, as our ears become familiar with the pitch-classes involved, we may well shift to a hearing of two temporally segregated instances of HEX built of simultaneous trichords in each instrument, with the segment boundary defined by the completion of the group of pitch-classes or of the set class (the two instances of HEX circled in solid lines). What we have, then, is a recontextualization of HEX by a shift in perceived segment boundary.

There is a strong competition between hearing two different pairs of HEX instances: those segmented horizontally by timbre versus those segmented vertically by set class completion. Segregating the two instances by set class completion gives us a compelling reason to think of the piano as two trichords, something that was only hinted at with regard to the criteria $C_{cseg}$, $C_{pc}$, and $C_{sc}$ associations between cello and piano.

Perhaps there is more recontextualization to be found if we think in terms of two new ideas:

\[
\text{SHORTRISE A} = \{C_{\text{int}<9,11>}, C_{ip<+9,+11>}, C_{pc<410>}, C_{cseg<012>}, C_{sc3:3}\} \\
\text{and} \\
\text{SHORTRISE B} = \{C_{\text{int}<10,11>}, C_{ip<+10,+11>}, C_{pc<E98>}, C_{cseg<012>}, C_{sc3:2}\}.
\]

Figure 1.20 shows a temporally accurate layout of the passage as notated with each instance of SHORTRISE A and SHORTRISE B labelled A and B, respectively. What stands out immediately is the registral relationship between the two SHORTRISE ideas. Over the first six notes of each measure, the cello’s SHORTRISE A lies tightly atop the piano’s SHORTRISE B. While the instruments swap, the pitch relationship remains the same over the second six notes of the measure, where the piano’s SHORTRISE A is now atop the
cello’s SHORTRISE B. Furthermore, the exact pitch relationship between A and B has been retained with the addition of another octave.

Figure 1.20 gives a strong sense of the feeling “estranged repetition” that is often the result of recontextualization in late Feldman. SHORTRISE A and SHORTRISE B begin each measure packed together in both time and register. In the second half of the measure, they both rise in register: SHORTRISE B rises only one octave, while SHORTRISE A rises two octaves. The segment boundary has become much wider in the second half of each measure. This contributes to the feeling of the piano floating above the cello and especially to the feeling, noted above with regards to \( S_1 \)-pitch and \( S_1 \)-duration, that the last piano note of each sounding measure floats off on its own.

While the ideas STAGGER, SPREAD, and SHORTRISE seem to fit better with the phenosegments arrived at through the segmentation analysis, they are too specific and too small to catch what I consider to be the main interest of the passage: the subtle shifts and reorderings in time of the same basic set of twelve notes in each sounding measure. What if we define a more catch-all idea called BUBBLE-UP?

\[
BUBBLE-UP = \{ C_p\{B1,Fb2,A2,Cb3,C#3,G#3,Gx3,E4,Ab4,Db5,C6\}, C_{pc}\{01489E\}, C_{sc6-14}[013458] \}.
\]

BUBBLE-UP appears in five instances, one in each sounding measure. Again, though, the contextual criteria and the segment boundaries do not change from instance to instance. The problem—and this is significant—is that too general an idea embraces too much and thus misses the locus of change, while too specific an idea (such as including the individual csegs at the bottom of Figure 1.15) only identifies a single instance of an idea.
In her article “Feldman, Analysis, Experience” Hanninen offers a means to further theorize the “estranged repetition” one finds in this and other passages.\(^{28}\) The analytical challenge with this passage is to be able to say something meaningful about what Hanninen refers to as a “continuous revelation of nuance.”\(^{29}\) Her answer is to rethink of repetition not as the additive re-statement of some musical segment, but as a cumulative extension of a whole at some larger, emergent level of organization. This larger whole she calls a “population,” borrowing the term from evolutionary biology: “Populations are more than collections of segments; they are individuals with emergent properties—properties identified not with individual segments but with interactions among segments in a population as a whole.”\(^{30}\) The idea I defined as BUBBLE-UP can be better understood as a contextual relationship among members of a population. Instead of removing individualizing criteria from each individual instance of the idea, I can think instead of a range of variation among instances with regards to these criteria. For instance, looking back to Figure 1.15, I can rethink the cseg criteria in such a manner that instead of pointing out the differences between each instance, it shows the similarities (see Figure 1.21). By tracing just how the variations are distributed throughout each member of the population, this new idea of cseg allows me to think of the individual instances as both individuals and as members of a population.

In effect, Hanninen’s idea of population thinking involves the transfer of variety from the sonic realm to the analytical realm. In most methods of music analysis, the


\(^{29}\) Ibid., p. 232.

\(^{30}\) Ibid., p. 233.
great wealth of nuance in the passage would take a great number of categories to
describe. The more specific the category, the fewer instances it covers, leading quickly to
a situation in which the map is as big as the territory. Population thinking takes the
variation inherent in a passage’s nuances and incorporates it into the categories
themselves, which now contain ranges instead of specific values. This analytical sleight of
hand effectively moves the problem from one realm to the other but brings with it an
important change in outlook. Population thinking pays respect to the variety and nuance
of the musical surface by approaching it in a non-reductive manner. Instead of picking
and choosing just those analytical categories that allow us to recognize repetition as
usually conceived, population thinking urges us to re-think our own experience of
repetition.

Are there aspects of my experience of the passage that cannot be described using
Hanninen’s approach? I find that the problems of aurally identifying pitches and rhythms
are both largely ignored in Hanninen’s theory. These problems only arise when we move
away from the score and on to the actual sounds as performed or heard. The first
problem is that of pitch. When using set class theory, it is accepted practice to treat
enharmonic pitches as equivalents. For Feldman, however, the strange note spellings in
the cello are quite meaningful. He spoke of the microtonal inflections inherent in writing
“directed” versions of notes. That is, for example, a Gx should be a bit higher than an A,
because usually a Gx is on its way to an A#. Similarly, a Cb should be lower than a B,
because it is usually on its way to a Bb. Elsewhere in Patterns in a Chromatic Field and in
other late works Feldman writes two enharmonically “equivalent” notes in direct
succession, bringing the microtonal relationship to the forefront of the listener’s attention. Feldman explains his predilection for these slightly altered versions of notes by comparing his sense of interval to a professional tennis player’s sense of the ball’s motion:

When you’re working with a minor 2nd as long as I’ve been, it’s very wide.

I hear a minor 2nd like a minor 3rd almost ... It depends on how quickly or slowly that note is coming to you, like McEnroe. I’m sure that he sees that ball coming in slow motion. And that’s the way I hear that pitch. It’s coming to me very slowly, and there’s a lot of stuff in there.\textsuperscript{31}

To the extent that performers make these microtonal nuances clear (Charles Curtis certainly does so in the Tzadik recording of \textit{Patterns in a Chromatic Field}), they complicate any sort of pitch analysis that would otherwise ignore them. While one can still hear the overlap between the cello and the piano in the passage analyzed above, there is a warped quality to the relationship that makes me, as a listener, question whether what I just heard really was a pitch-class segment.

The second problem arises from the rhythmic difficulties inherent in this and many other passages in \textit{Patterns in a Chromatic Field} and in late Feldman in general. The layout of the passage first presented in Figure 1.5 assumes a perfect rhythmic performance that is extremely difficult, if not impossible, for two humans to realize. For one thing, there is no underlying beat by which to measure the dots and double-dots, unless the performer is capable of counting extremely rapid subdivisions at the 16th-note. The lack of a pulse makes coordination between the two performers almost impossible as

\textsuperscript{31} From the liner notes to the Tzadik recording of \textit{Patterns in a Chromatic Field}. 

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well, not just in the middle of measures but even on the notated downbeats. In the Tzadik recording, most of the downbeats of the sounding measures come across not as simultaneities but as what drummers call “flams,” offset double-attacks on a single beat. Feldman delighted in the actual rhythmic performances that came from his rhythmically confusing notation:

Stick out the second finger of each hand. Without pre-establishing a consistent beat, try and have both fingers come down together at the same time. You will find that one finger is always heavier or stiffer or emphasized more than the other. You can imagine what happens when many instruments have to speak at the same time without the motorized advantage of a steady beat.\(^{32}\)

The problems of identifying pitches and rhythms that you cannot quite discern from the score are difficult to solve. One might look instead at the sonic evidence from one or more performances, using much the same technique that Hanninen uses, but directed at the sounds themselves rather than at how they are represented in the score. Such an approach, however, might attach too great an importance to the performances analyzed, and not enough importance to the composition itself. But more fundamentally, these problems are perhaps best not solved. That is, the oddities of pitch and rhythmic identification and classification one finds in late Feldman and the confusion they engender are a central part of the meaning of the works.

III. The Painterly in Feldman

It is difficult to speak of Feldman without at least acknowledging the so-called New York Schools of art (e.g., Jackson Pollock, Philip Guston, Barnett Newman, Willem de Kooning, Robert Motherwell, Mark Rothko, Franz Kline), literature (e.g., Frank O’Hara, John Ashbery), and music (e.g., Stefan Wolpe, Earl Brown, David Tudor). The New York School was a loose assemblage of artists doing a great many different new things around the late 40s and through the 50s in New York City. Feldman himself was a friend to many of these artists and writers, so it is only natural that people have sought to compare Feldman’s music with their works, theories, and techniques. He also wrote about their work. And many of his pieces are named after or dedicated to towering figures in the other arts: not only de Kooning, Guston, Rothko, Kline, and O’Hara, but also artists outside the New York School like Samuel Beckett and noted musicians such as John Cage and Christian Wolff.

Feldman himself talked at length about the effect of artistic currents on his development as a composer. Asking himself the same sorts of questions about his sound

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and music that his “abstract expressionist” painter friends asked themselves about paint and art led Feldman to desire “a sound world more direct, more immediate, more physical than anything that had existed heretofore.”

Other writers have pointed out specific ways his music seems to act like a color-field canvas by Mark Rothko or a drip canvas by Jackson Pollock. I, too, am often struck by the visual similarities between spectrographic images of Feldman recordings and paintings from the New York school artists. In cases where the spectrograph quite clearly shows the sonic objects in a scene, the similarities are almost shocking, as in the comparison of a spectrograph of an excerpt from Patterns in a Chromatic Field with Robert Motherwell’s 1961 painting Elegy to the Spanish Republic, 70 (see Figure 1.22, CD track 2). In both the spectrograph and painting, we see similar objects repeated across the canvas, at times overlapping one another. The haziness of the noise produced by the cello’s harmonics finds a counterpart in the rough and dripping edges of Motherwell’s shapes. Though I in no way wish to suggest that Feldman had in mind the spectrographic images his scenes might create, I do think such comparisons are valid in so far as spectrographs in question present a reasonable portrayal of the musical surface as experienced.

35 “Sound, Noise, Varèse, Boulez” (1958), in Feldman, Give My Regards to Eighth Street, p. 5.


37 I studied spectrographic representations of Feldman’s music in preparation for writing this dissertation. These were produced with the Raven Lite software put out by the Cornell Lab of Ornithology’s Bioacoustics Research Program, available at http://www.birds.cornell.edu/brp/raven/RavenOverview.html.

The enormous scale of Feldman’s long, late pieces is something shared not only with many of the works of the New York School painters, but also modern architects such as Richard Meier. One hazy, foggy late afternoon in the fall of 2006, I visited one of Meier’s grandest works, the Getty Center in Los Angeles. I felt like I was deposited in a strange world of objects that had no reason to be the way they were, no functional reason, anyhow, and I wandered around, returning to many places, looking at the same places from a number of different angles. It was like a giant sculpture garden, in which not just distinct sculptures but the architecture itself and the landscaping all blended into a strange labyrinth of confusing terrain, one that I could spend hours, even days, exploring without losing that sense of wonder and awe evoked by the enormous scale of the place. Enormity in its own right is nothing to be underestimated. Feldman himself, speaking of scale in both the paintings of his friend Mark Rothko and in his own work, muses:

The question of scale ... precludes any concept of symmetry or asymmetry from affecting the eventual length of my music. As a composer I am involved with the contradiction in not having the sum of the parts equal the whole. The scale of what is actually being represented, whether it be of the whole or of the part, is a phenomenon unto itself.”

Feldman goes on to describe the trial-and-error process by which Rothko finds just the scale at which his color fields create an overall balance that was impossible to achieve on a smaller (or larger) canvas. It seems to me that one of the main ingredients is reaching a

39 “Crippled Symmetry” (1981), in Feldman, Give my Regards to Eighth Street, p. 137.
size difficult to take in as a whole, thus inviting new ways to experience scale for the viewer.

Around the time I visited the Getty Museum I had been listening intently to Feldman’s second string quartet, a six-hour labyrinth of strange, austere mystery. I started thinking of the quartet as something like this museum, like a sculpture garden, made of different stabile and mobile objects seen from different views. A large wall might look small from far away, but then strolling right up to it it looks huge, due to foreshortening or parallax. Two objects seen that seem to belong together from a distance turn out to be unrelated from up close, just as an eclipse between the moon and the sun, seen from the earth, does not stand out as a special event to the viewer on Mars. Being lost in such a museum or such a piece of music is much different from being lost in a supermarket or a strange city. It is a cultivated lostness, a subtle and enchanting dislocation that keeps people coming back to the work, a lostness that stems not just from an unfamiliarity with the objects, but from a defamiliarization of the very processes by which objects are constituted or recognized in the first place.

To compose or to think about music in terms of serial process creates a super-structure standing in the way of the direct expression Feldman sought to find in his music. In a music in which time is measured out, one is bound to hear motion, to imagine a world in which a melody moves, and hence to point beyond the surface of the composition. To hear tonality is to hear a system of locations closer to and further from a home, another projection outside the surface of the time-canvas. So how does one compose in a manner that avoids such super-structures and keeps the focus on the aural
surface? Feldman had been searching for and finding answers to this question since his earliest compositions. His system-defying approach is highlighted in his account of an early interaction with John Cage:

> At this first meeting I brought John a string quartet. He looked at it a long time and then said, “How did you make this?” I thought of my constant quarrels with Wolpe, and also that just a week before, after showing a composition of mine to Milton Babbitt and answering his questions as intelligently as I could he said to me, “Morton, I don’t understand a word you’re saying.” And so, in a very weak voice I answered John, “I don’t know how I made it.” The response to this was startling. John jumped up and down, and with a kind of high monkey squeal screeched, “Isn’t that marvelous. Isn’t that wonderful. It’s so beautiful, and he doesn’t know how he made it.” Quite frankly, I sometimes wonder how my music would have turned out if John had not given me those early permissions to have confidence in my instincts.⁴⁰

“Negation” is the word Stefan Wolpe used to describe Feldman’s early compositional approach: never letting an idea force his hand, never developing a system, always resisting any sort of reference beyond the immediate musical surface. This was certainly not a popular compositional approach, then or now. Few have stuck to such self-imposed isolation for as many years as Feldman did.

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Radical negation is perhaps the only real unifying factor among the diverse group of artists, mostly painters, with whom Feldman associated himself in the forties and fifties and whose approaches and techniques he consciously sought to emulate in the musical realm. Rothko talks of increasing clarity by removing obstacles such as memory, history, and geometry.\(^{41}\) De Kooning once praised a Bernini painting for its lack of expression, despite being a meticulously executed representational work: “You look at it and it doesn’t say a thing. It says nothing about the enormous amount of work ... It takes your breath away to see that done with such grandeur—and not to say anything.”\(^{42}\) Calder had few words to say about anything but the physical specifics of his sculptures: “My mobiles are objects in space. I am a sculptor because I want to avoid telling stories.”\(^{43}\) Cage, associated early on with the abstract expressionists, as they came to be known, gave his famous dictum “I have nothing to say and I am saying it.”\(^{44}\) Finally, there was the younger Rauschenberg. The first time they met, Feldman inquired about buying a black painting with newsprint, and Rauschenberg replied that he could buy it with “whatever you’ve got in your pocket.”\(^{45}\) Rauschenberg took the idea of negation to its natural conclusion in his series of erased works, culminating in the “Erased de Kooning Drawing,” in which he painstakingly rubbed out every line with a variety of eraser types.

\(^{41}\) Rothko, *Writings on Art*, p. 65.
\(^{42}\) *Art Forum* 41/7, p. 45.
\(^{44}\) *I Have Nothing to Say and I Am Saying It*, videocassette, directed by Alan Miller (PBS/American Masters, 1997).
\(^{45}\) Quoted in Alex Ross, “The American Sublime,” *New Yorker*, June 19, 2006. Feldman goes on to say he bought the painting for a little over seventeen dollars.
over the course of several weeks, leaving visible smudges of the previous surface but giving little hint of de Kooning’s original.

Feldman manages a similar negation in the musical realm. He uses the material of music as we know it—chords, meters, durations, pitch-class sets, and so on—but instead of unfolding them in time, he endeavors to turn time into space, to use an image from Beckett. This is not just an idle metaphor. According to Feldman, unfolding ideas in time would result in “a paraphrase of memory.”

For instance, when traditional musical ideas act toward a goal of creating movement, or continuity, or even discontinuity, our focus leaves the sounds themselves and shifts instead to what those sounds are doing—a sort of hearing always grounded in the memory not just of what immediately preceded the sounds in question, but also the memory of the wider context of all the music we have known before. It is as though we listen not to the sounds but to the story told by the sounds. The desire to avoid intellectual super-structures or references beyond the canvas or sculpture itself was a unifying ideal among the painters in Feldman’s milieu.

Since Feldman spoke so often about visual art, or about music in painterly terms, Jonathan Bernard is right in thinking that one does a great disservice in analyzing Feldman if one does not take this painterly bias seriously. “What can it mean to assert that Feldman learned to compose mainly by listening to painters talk and looking at their work?” he asks in his provocative essay “Feldman’s Painters.” How do we unpack the metaphors into real and valuable musical observations?

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46 “Crippled Symmetry” (1981), in Feldman, Give My Regards to Eighth Street, p. 137.

What one so often sees in writings comparing music and art are vague connections of “spirit,” or tenuous analogies of technique. One might claim that Debussy and Ravel defocused tonality the way Monet and Degas defocused the represented image, or that Satie’s use of a typewriter parallels the ready-mades of Marcel Duchamp. These sorts of statements are vaguely suggestive, but do not offer musical insights that could not be obtained without the art comparisons. I believe one can find more penetrating insights by comparing the acts of looking at art and listening to music.

A great many musical insights can come from taking a rigorous look at the structural features that are articulated by descriptions that on the surface appear to be fanciful metaphors. Take Feldman’s own recurring metaphor of the “aural plane.” Feldman often describes his works as “time canvases” in which he strives to create and maintain an aural plane. Here he brings up some painterly ideas of negation with regard to the aural plane:

What I picked up from painting was what every art student knows. And it’s called the picture plane. I substituted for my ears the aural plane and it’s a kind of balance but it has nothing to do with foreground and background. It has to do with, how do I keep it on the plane, from falling off, from having the sound fall on the floor. Most people have a sound that doesn’t fall on the floor by giving it a system. Harmony or twelve tone, you see. Without the system it falls on the floor ... I’m involved like a painter, involved with gradations within the chromatic world. And the

48 Theorists such as Marion Guck, Joseph Dubiel, Fred Maus, and Robert Snarrenberg have written extensively on “structural” insights that arise from metaphorical descriptions.
reason I do this is to have the ear make those trips. Back and forth, and it gets more and more saturated. But I work very much like a painter, insofar as I’m watching the phenomena and I’m thickening and I’m thinning and I’m working in that way and just watching what it needs. I mean, I have the skill to hear it. I don’t know what the skill is to think it, I was never involved with the skills to think it ... I’m the only one that works that way. But it’s like Rothko, just a question of keeping that tension or that stasis. You find it in Matisse, the whole idea of stasis. That’s the word. I’m involved in stasis. It’s frozen, at the same time it’s vibrating.  

This elusive balance, this “vibrating stasis,” is something Feldman spent his life searching for. He went through a number of notational styles trying to find one that would “float” the notes most statically. In the long, late works he used what he termed “the grid.” Bunita Marcus, a composer and former student and close associate of Feldman’s, has described his late compositional strategies in more detail than anyone else, most recently in her 2011 lectures “Structure and Notation in the Music of Morton Feldman.” Through their conversations and through close discussion of compositions in progress, Marcus became conversant with Feldman’s use of the grid, which is a format of barlines evenly spaced on the page into which he places ideas in precise notation. The grid organizes Feldman’s spatial-musical ideas into discrete time segments (usually a system or a page in length) without sacrificing the effects of timelessness in his earlier


50 The lectures, given on two Sundays in New York City, were also available via webcast. See also Marcus’ piece “The Square Knot: A Memoir,” in Vertical Thoughts: Morton Feldman and the Visual Arts, pp. 196-209.
graph notation of pieces like *Intersection 1* or 2 or the rhythmic variety resulting from the unspecified durations of a piece like *Last Pieces*. By varying the meters, using strange tuplets, adding dots to certain notes, and other means, Feldman keeps the grid from having a metrical effect or creating the impression of motoric rhythm or overtly measured motion. It is not that motion itself is incompatible with the aural plane in Feldman’s music, or with the picture plane in abstract expressionist art. In work such as Pollock’s “all-over” canvases, for example, it is the “rhythmic vitality” that keeps the surface alive. What Feldman avoids is not rhythm itself, but any sort of rhythm that points to some representation of propulsion beyond the sonic surface.

IV. Creating the Aural Plane: Minimalism and Feldman

It is one thing to say that one can fruitfully listen to late Feldman like one looks at New York School paintings. But it is quite another to describe the structural aspects of his music that support such a comparison. The main structural overlap I find between Feldman and the abstract expressionist painters is an overarching concern with the surface. Therefore, I will now turn to the “aural plane,” the musical version of the painters’ picture plane. I shall demonstrate how Feldman achieves the vibrating stasis of the aural plane through what I call “annular” time. I use the word “annular” (ring-like) to avoid the more rigid metrical implications of “cyclical” (or the German “Takt”).
Every musician thinks in cyclical time structures, if only unconsciously. Whenever the stress patterns of different meters are taught or felt, whenever the order of a row is discussed or heard, lurking behind the experience is a conception of ordinary linear time wound into self-similar cycles. One might illustrate the relationship between this annular time and our usual linear time in much the same way one illustrates the relationship between pitch height and pitch-class, with the familiar visualization of the chromatic pitch scale as a spiral staircase that, seen from above, appears to be a circle. In common time, we move step by step up a spiral staircase at a constant rate, and we might imagine each complete turn of the staircase as a cycle composed of four steps: a strong beat, a weak beat, a medium beat, another weak beat, and then a strong beat again, followed by a weak beat, and so on.

Annular time is a circular dimension of time in which sonic objects are located in reference to some ideal order. However, objects can be shifted backwards or forwards in linear time, or can be missing from one or more cycles, without destroying the annular time circles constructed by the listener. Using repeating patterns gives the impression of stasis: the recurrence of a set of objects is what makes the objects seem to sit still, always (usually) occupying the same place in the order. Even though the piece necessarily proceeds through linear time, the repetitions allow us to imagine the objects as static. By keeping temporal relationships between events in annular time loose, this stasis itself ceases to push the ear beyond the present, allowing the “vibrating stasis” Feldman is after.

The austere minimalist works of early Glass or Reich succeed in creating an aural plane through annular time, but they also have a motoric drive that tends to push one’s
attention beyond the plane and into the realm of usual musical sense-making, away from the individual details of the notes or even the overall detail of the auditory scene. That is, their metered motion allows the listener to project the inferred time units into the future, and thus away from the now-sounding notes themselves.

In Philip Glass’s *Einstein on the Beach*, annular time structures perdure, grow, shrink, and interact with other such structures, often of different lengths. In Figure 1.23, I have notated some of the violin part from the first Trial scene of *Einstein*. The first bar is repeated ten times, which is sufficient for a listener or performer to sense a frame. By “frame,” I mean a constituted image of an annular time circle.

In the scene from *Einstein*, the frame aids in the creation of the “solid-state” surface effect that is such a talking point about Philip Glass. While listening to the first measure, the importance of linear time is backgrounded: we become stuck on a single repeating pattern. As the repetitions pile up, I cease to hear each one as very distinct, and instead I imagine the entire bar as a static unit. The number of repetitions need only be enough to make us aware of the frame—three could suffice. The constant retracing of the pattern does not strike me at all like repetition as we encounter it in Beethoven, or Mozart, or Schoenberg. Glass’s repetitions do not refer back or forward. They do not add emphasis or bring out similarity. Instead, they *extend being*. Rather than hearing the repetitions as a flow of events in linear time, I come to hear a single sustained state.

Above the musical excerpt in Figure 1.23 I have represented the flow of linear time as a straight line and each of the note-events of the first bar as a numbered dot. To

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51 The notation is adapted from Glass, *Music by Philip Glass*, p. 58 (in Glass’s own example he has mistakenly notated the A4s as G4s, which is not in keeping with the score or the various recordings).
conceive of the relationship of linear time to annular time, one must simply imagine the linear time line as folding back upon itself, forming a modular space in which the end of a cycle is connected seamlessly to the beginning of the next, as shown in the circles below each bar. After ten repetitions, the listener has firmly constituted this modular space and can almost forget about the small-scale flow of linear time, focusing instead on larger chunks of the “present” contained within the frame.

The larger chunks of the present represented by the annular time circles below the score can be thought of as eddies in the current of linear time. It is between the larger presents that the action of the scene takes place. In the second bar, the pattern of bar one is disrupted by a new note introduced after the third note, after which the pattern resumes. Repetitions of this expanded pattern create a new chunk, a slight modification of the first chunk. This process continues as players go from one measure to the next, giving us the experience of a single pattern gradually growing. It is important to note that the process would not work as well without the great number of repetitions. If the patterns are played only once, they strike the listener only in linear time and in fact are probably not constituted as patterns at all. It takes repetition to break up the steady flow of notes, to define the edges of the pattern that constitute the frame. Repetitions are what drive the constitution of annular time, and annular time is the mechanism by which we can take in larger chunks of linear time as longer presents.

The process of augmenting or expanding this longer present is what Glass calls the “additive process.” Comparing this process to another favorite technique of the composer, the “cyclic process,” can help elucidate another aspect of the concept of
annular time.\footnote{Glass discusses both processes in \textit{Music by Philip Glass}, pg. 59.} Figure 1.24 is taken from an earlier scene in \textit{Einstein}. In this case, there are two cycles of identical pulse performed separately by saxophones and voice, but the cycles are of different lengths. If we parse the scene into two separate annular time circles, as illustrated in Figure 1.24, then we are necessarily hearing one circle completing a rotation faster than the other circle. The component members of the two circles always coincide in linear time, hence the cycles interact in a way often described in terms of clockwork. Linear time itself can be thought of as a rack: as the present recedes into the past, the rack moves to the left, moving the two pinion gears annularly.\footnote{A rack, mathematically speaking, is a segment of a gear with infinite radius.} The two gears rotate at different rates, the faster three-toothed gear completing one revolution per every three teeth of the rack, and the slower four-toothed gear completing one revolution for every four teeth. In the Glass scene, the perceptual friction between the steady pulse shared by both cycles and the fact that these cycles must be imagined as rotating at different rates creates a certain amount of interest within the frame.

To conceive of the scene in terms of gears moving regularly and with equally spaced teeth is only possible because the units of annular time and the units of linear time are the same in the scene. That is, the pulse of each instrument group’s annular time circle is the same pulse we would feel if there were no repetitions and annular time were not constituted.

The annular time in this and most Philip Glass scenes is a metered time, not just an ordered set of events. This is in stark contrast to most Feldman scenes, whose
constituted annular time structures tend to eliminate everything but order itself, and even that order is rarely safe from warpings and variances. Pulse is not a hearable aspect of linear or annular time in most late Feldman, whereas in most of Glass’s works it is constant and inescapable.

The “clockwork” feeling of Glass’s cyclic process is similar in effect to the “phasing technique” of the other famous early minimalist, Steve Reich. If one imagines this technique in terms of interlocking gears or pinions rolled by a rack, then each step forward in the phasing process could be understood as a gear “slipping” a cog. In his early pieces Piano Phase and Clapping Music, two performers start by repeating an identical cell several times, building up a clear impression of annular time and the temporal frame in the process. Then the entire frame is moved over one pulse in one of the parts. In Piano Phase, the move is meant to be gradual, with one player accelerating until locking in an eighth note ahead of the other player. In Clapping Music, the frame shift is sudden. Figure 1.25 shows the first three measures of Clapping Music, each of which is to be repeated twelve times per the composer’s instructions at the beginning of the score. The two performers begin in unison in the first bar, then their respective annular time circles are offset by one eighth note in the second bar, then two in the third. This process continues until the performers finally line up again in the thirteenth and final bar. The offsets problematize our idea of the frame. At first it is possible to hear the overlap and fit the entire idea into a single frame. But as the moving part (clap 2) approaches the halfway point, we would be hard-pressed to identify the frame. Instead, we are left with a constant motoric motion. Instead of listening to the process of the one part shifting, we
are more likely to start exploring the composite rhythms produced by each new offset. These composite rhythms were fascinating enough to Reich that he incorporated them more explicitly in later phase pieces such as *Violin Phase*. In these later pieces, Reich wrote one or more new lines formed from composite patterns and had them gradually fade in and out. The effect is one of guided attention: instead of letting our ears roam at will through the various composite patterns implicit in the phasing technique, he hand-picks a few of his favorites and gradually brings them out against the backdrop of the original two lines. In later Reich pieces such as *Music for 18 Musicians*, composite patterns often take over completely, becoming the basis for new sections and new phase patterns.

Both Glass and Reich were preoccupied with disrupting static cyclic patterns by augmenting, interlocking, or phasing them. These disruptions seem to be driven by a desire to depict a process that proceeds more slowly than note-to-note linear time. That is, successive frames form longer chunks of time, and the changes from chunk to chunk become the focus rather than the motion within each chunk. Such a shift of emphasis to the repeated unit is what allows Glass and Reich to achieve an aural plane.

The frame constituted by the listener makes it possible to imagine the musical contents as arrayed on a single surface, each as present as the other, despite their nearer or further locations in linear time. The frame at its simplest may seem to be but a side effect of annular time. As the repetitions pile up, we cannot help but hear the seams between each new version of the same material. In this sense, the listener parses the frame in the same way that objects are parsed within the frame: both are located by their edges. The hard attack and quick displacement of individual note-objects in both Glass
and Reich make it easy to find the edges at the level of the object. The motorically chiseled annular time patterns make the edges of the frame just as easy to hear, as long as the frame stays still. However, the frames themselves can be warped (as in the additive process of Glass), or stretched, questioned, and blurred (as in the overlapping frames in Reich’s phasing music).

In Feldman’s music, repetition is rarely as exact as it is in the music of Glass. And the changes that repetitions of the pattern undergo are rarely as process-oriented as we find in the music of Reich. Feldman’s frame is instead brought constantly into question, negated, or even abandoned. A close look at a few late Feldman scenes will show some of his novel approaches to annular time and illustrate the way his aural planes defy making sense in the same kind of musical space in which the music of Beethoven, Schoenberg, or even Glass and Reich make sense.

Let us return to the passage explored in part II of this chapter, the scene in Figure 1.3 (CD track 1). This passage is the first of what I call the BUBBLE-UP scenes in Patterns in a Chromatic Field. In what follows I shall consider the scene’s annular time in detail. The piano and cello each have their own set order of pitch events, which can be represented in two separate annular time circles (Figure 1.26a). The order of pitch events in each cycle never changes, and the individual durations of each event only change slightly each time. As already noted, Feldman creates rhythmic variation by using a set number of dots and double-dots but distributing them differently in each repetition. This is a technique that he frequently uses to create subtle rhythmic variations. The effect of the dots on the unfolding in linear time of the first iteration of each instrument’s annular time circle is
shown in Figure 1.26b. Only the first events in the cycles are co-initiated. Hence the annular times for each instrument coincide in linear time only once per six events. Between these tyings, the objects have a certain freedom to float this way and that, only returning to the strictly notated (and, again, rarely exactly performed) simultaneity at the first pitch event of each instrument’s annular time circle (Figure 1.26c). This is a subtle problematizing of annular time that is not found in Glass and which is only hinted at by Reich during the “in-between” sections of a piece like *Piano Phase*, in which one piano slowly accelerates to get a step ahead of the other. In Reich, the effect is reminiscent of machines, which fact is made more salient by Reich’s own telling of how he came up with phasing as a result of listening to two tape loops getting out of sync by accident, due to tiny variations in machines supposedly playing back copies of the same tape at the same rate.\(^{54}\) The result is a tying-together of two identical annular time circles in linear time at the beginning, after which the one rotates faster and gets out of sync with the other, eventually falling into a new stability as the rhythms form sensible composites. With Feldman, the effect is more irregular, more human, more man-made, more like a hand-woven rug.

Comparing Feldman to Glass and Reich in this regard begins to identify the way Feldman stands apart. But simply tying together the first members of two separate annular time circles and allowing the rest of the objects to get out of sync in linear time is not unique to Feldman. One notable example of a similar idea is the piece *Les Moutons de Panurge* by Frederick Rzewski, the entire score of which is reproduced in Figure 1.27. In

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this case, the musicians are meant to try to stay together through a very fast, very tricky sequence of events, but inevitably they will lose sync, and when they do, they are instructed not to try to reconnect (if the music was not difficult enough by itself, the raucous contribution of the non-musicians will likely force even the most professional of musicians into making a mistake). The annular time warps that arise in this piece are unpredictable, in that nobody knows in advance just when they might happen. But the pulse is steady enough that any such warps are sure to fall into a phase relationship a la Steve Reich, albeit one unplanned and abruptly begun. In the Feldman passage (Figure 1.3), by contrast, there is no pulse and therefore the relationship between the two annular time circles is even more unpredictable. Rzewski’s method of forcing mistakes is reminiscent of Feldman’s fascination with the “mistakes” inherent in the nomadic rugs he loved and with which he so deeply identified. During their trip to Turkey, Feldman and Bunita Marcus were able to talk to a number of experts on the subject, who assured them that the very best rug-makers could quite easily weave a rug much closer to perfection, one with symmetry, evenness of color, and exactitude of shape, but they purposely introduce mistakes, and it is these mistakes that rug connoisseurs look for in the greatest works of Turkish textile art.55

Feldman’s desire for imperfection is not always evident in his notation. Consider the example reproduced in Figure 1.28 (CD track 3).56 The meters and rhythms form a rug-like, woven matrix pattern within each four-bar section. Thinking visually about the


56 Here as in all references to String Quartet No. 2 I shall locate passages by the convention page number/system.
first four bars, one can trace the 9/8 meter from upper left to lower right, the 3/4 meter from lower left to upper right, with the remaining diagonal “stripes” formed by 2/2 and an alternation of 7/8 - 9/8 - 7/8. Feldman himself, according to Bunita Marcus, thought of each metrical arrangement as something like a differently-colored square knot, with the entire four-note gesture representing a four-colored visual pattern.\(^{57}\) A traditional analysis would rightly point out the two retrograde relationships in the meter and rhythm of the bars: the first violin’s sequence of meter signatures and rhythms is reproduced in retrograde by the cello, with the exception of the cello’s first measure being left blank.\(^{58}\) The second violin and viola are also in a retrograde relationship, as well as being a re-ordering of the metrical and rhythmic order of the first violin and cello.

These sorts of structures cannot really be heard in performance. For one thing, it would be nearly impossible to play the rhythms with any degree of perfection. The barlines line up, but of course the actual timings would only equal out over all four bars. Add to this the fact that everyone is playing very softly at the same pitch (give or take an enharmonic offness of the kind we found in relation to the passage from Figure 1.3), and the repetition of the four bars, and you have a recipe for nobody knowing exactly what the other players are doing. The resulting “vibrating stasis” is formidable, and is indeed something I can imagine floating as in an “aural plane,” but in this case the aural plane has little to do with the notational plane. One can imagine, though, what sorts of

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57 Marcus, *Structure and Notation in the Music of Morton Feldman*. Marcus had a slide in which she represented each metrical/durational pattern as a different color, to which she compared one of Feldman’s favorite rugs.

58 Such purposeful avoidances of complete regularity of pattern abound in late Feldman scores. Sometimes a mostly retrograde pattern has a measure removed, sometimes single barlines are turned into repeat signs in a seemingly random fashion, and at certain points it is difficult to say if there is a clef change or a transcription error.
instructions one would have to give a string quartet to produce this sonic result by another means: “play the same note, but at varying rates, never the same rate as anyone else, and change the tone a bit every few times while you’re at it.”

The audibility of the frame itself comes into question in Scene 21 of Patterns in a Chromatic Field (Figure 1.29, CD track 4).59 From the score alone, one can see a certain periodicity. In every bar there is one cello pluck, and in every set of four bars there are two chordal structures in the piano. The first chordal structure (A) is what I call a THIS-THAT structure, here realized as a quick succession of chords. In the second chordal structure (B) the two hands play simultaneously, so you might hear a single chord or, by comparison with the more obviously two-part structure of A, you might hear a vertical combination of a low chordal segment and a high chordal segment. The frame confusion in this scene arises when we try to integrate the cello plucks with the piano chords. Feldman clearly uses “the grid” in composing, distributing two cello plucks per piano chord: the aural result, though, is far more complicated and more confusing than the visually clear grouping on the page, for Feldman gives himself the freedom to put those plucks wherever he will. As the scene unfolds in performance, it becomes difficult, almost impossible, to relate the cello plucks temporally to the piano structures in any but the loosest sense. Instead of hearing framed sections containing two cello plucks and one piano chord, I end up hearing an ongoing stream of piano structures seemingly unfolding without any regard to a separate ongoing stream of cello plucks: [A-pluck-pluck, B-pluck-pluck, A-pluck-pluck-pluck, B-pluck, A-pluck...]. The reason for this becomes clear when

59 The naming of sections in this piece will be explained in part V of this chapter.
we attempt to relate the piano structures to the cello plucks in a steady annular time circle. Over the first three chord structures (A, B, A), there is a piano event followed by two cello plucks. The reliability of this sequence of events allows us to hear it as what psychologist Albert Bregman calls a progression: a logical and predictable sequence of events that can be heard as part of a single auditory stream. We expect the alternation of A and B to continue, each followed by two cello plucks, and so we form a conception of annular time that goes [A, pluck, pluck, B, pluck, pluck]. However, the ensuing events call this into question. We get one cello pluck, then a piano B structure, another cello pluck, then a piano A structure whose top part overlaps with the next cello pluck. This disruption of the annular time structure we built up over the first three piano structures is enough of a wrench in the machine to cancel our initial idea of the frame, for we are no longer able to hear a predictable progression of [x, pluck, pluck] within a single stream. Instead the best we can do is parse the scene into two separate streams: piano chords and cello plucks. It seems to me that if the scene were to go on a bit longer, it may be able to right itself, to settle once again into a predictable progression and thus regain an aural frame that matches the score’s “notational frame.” But as written and as performed this is not possible. Indeed, this very failure might be thought of as the subject of the scene.

A similar experience arises in Scene 22 (see Figure 1.29, second system, CD track 5). Here, we first settle into what appears to be a simple oscillation between a piano chord and a cello harmonic. But in the fifth bar of the scene, there is one oddball harmonic that does not come after a new piano chord. Given the brevity of the scene, this

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60 The basic vocabulary of streams and progressions used throughout this dissertation comes from Bregman’s *Auditory Scene Analysis*, especially the first two chapters.
disruption is enough to throw us into a non-progressive hearing. And since the scene ends so soon after the disruption, there is no hope of righting the frame.

In a sense, the frame does survive in Scenes 21 and 22, but broken up into two frames, one for each individual stream (chords and plucks). In Scene 21, for instance, as the cello dissociates into its own stream, I can continue to hear the oscillation between the piano’s chord-objects as defining the length of a frame. Or I can continue to hear pairs of cello notes as defining a frame, even though this throws the rhythmic placement of the piano chords into a seeming randomness that is not how they seemed when I used them to create a frame. Try as I may, I cannot hear both frames at once. The closest I can come is to hear them in what I might venture to call a probabilistic or roughly additive manner: for each piano structure I hear somewhere around two cello plucks.

The difference between the types of aural planes created by Feldman on the one hand and Glass on the other is reflected in the picture planes of the artists with whom we associate each composer. Through personal friendships, creative commonalities, and spatial-historical placement we think of Feldman as aligned with the abstract expressionists and Glass with the post-painterly abstractionists and minimalists. One can read echoes of Clement Greenberg in Feldman’s essays on painting and music. Both were Cedar Tavern regulars in the forties and fifties, along with many of the most celebrated painters and writers of the New York school. The obsession with the picture plane, the studied avoidance of any suggestion of realistic depth, the love for a canvas filled from edge to edge with content: these were ideas Feldman tried to reproduce in his music. Feldman’s first commissioned piece was the score for Hans Namuth’s film on
Jackson Pollock; his closest friend was Philip Guston (the falling out between Feldman and Guston seems to have arisen directly from Guston’s sudden turn to representational, cartoon-inspired work); and by far his most-performed and most-heard work was written for the dedication of the Rothko Chapel in Texas. Philip Glass, on the other hand, has collaborated with Sol Lewitt, remains close friends with Chuck Close, and associates with Frank Stella and Donald Judd.

One of the biggest differences between the abstract art liked by Feldman and the type associated with Glass was a turn away from a focus on paint. Hence Greenberg’s characterization of paintings being about paint for Pollock, and later his coining of the term “post-painterly abstraction” for many of the artists of Glass’s era. Feldman himself opined that Mondrian’s seemingly homogeneous textures depended on their being painted stroke by stroke.\(^61\) Rothko himself became too ill to physically paint all the layers in his last paintings, but he still considered it important to have an assistant painstakingly apply layer upon layer of paint and glaze by hand. For Feldman, the tiny mistakes and quirks that would enter into even the starkest shapes in such hand-made paintings assumed what you might call a religious value. In describing the “mistakes” in his beloved rugs, he points out that perfection is reserved for God alone.\(^62\) This insistence on art being kept in the human realm finds expression in many of Feldman’s choices throughout his career: he never turned to electronic music or to new instruments, always preferring the traditional instruments that have been built and played by humans for hundreds of

\(^{61}\) Mondrian’s work was separate both historically, geographically, and ideologically from both the abstract expressionists and the “post-painterly abstractionists,” but shares structural similarities with the latter (the “hard-edge” style) and enjoyed the admiration of many practitioners of the former.

years. He always wrote at the piano, finishing an ink copy of each page before he started the next page. And from Varèse, he learned to always keep in mind the time it took a sound to get from the performer to the listener.

Not to overstate the contrast, but it could be said in general that the later abstract artists who fall under the name “minimalism” tended to embrace the sort of perfection that can come with printing rather than painting, molding rather than shaping. The steady pulse and the even timbre of the electronic organ in Glass’s early work are analogous to the stark lines and precisely measured shapes of a late sixties Frank Stella print.

V. Depicting Attention

No account of the late music of Feldman would be complete without considering the musical consequences of his avid interest in Persian and nomadic rugs, an interest he developed later in life. The focus in music-rug comparisons is usually the idea of “crippled symmetry.” A hand-made, Anatolian rug may appear bilaterally symmetrical at first glance, but closer inspection often reveals numerous differences on the two sides. These differences range from more accidental elements such as subtle differences in dye color or knot size to more intentional variations in shapes and spacing, purposeful “errors” introduced by the artisans as a traditional expression of the imperfection of

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63 “Crippled Symmetry” (1981), in Feldman, Give my Regards to Eighth Street.
human as opposed to divine endeavors. These crippled symmetries became an obsession of Feldman’s. In his lectures he elucidates some of the overlap between his thinking about rugs and his thinking about music. Here he discusses color specifically:

The color-scale of most nonurban rugs appears more extensive than it actually is, due to the great variation of shades of the same color (abrash)—a result of the yarn having been dyed in small quantities. As a composer, I respond to this most singular aspect affecting a rug’s coloration and its creation of a microchromatic overall hue. My music has been influenced mainly by the methods in which color is used on essentially simple devices. It has made me question the nature of musical material. What could best be used to accommodate, by equally simple means, musical color? Patterns.⁶⁴

But one need not look to nomadic crafts or the history of art to find apt parallels to Feldman’s late music. When I introduce the long, late pieces to others, I often use the comparison of clouds in the sky. The scale involved in the act of looking at the clouds is similar to that involved in listening to a late Feldman piece: both present one with a huge world, impossible to take in with a single glance. Instead, you might look now here, now there, might dwell for a second or two on one area, then a minute or two somewhere else, then right back to the first area (though now it is not quite the same), then onto another, and so on. A lot of the joy lies in watching the ever-changing relationships between two or more cloud formations. Shapes drift across the sky, slowly moving and changing in

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various ways, sliding in front of or behind others, occluding the moon or the sun, and changing in color, texture, and density. These shapes keep their relationships to one another for long periods of time, though the relationships may gradually become strained and finally no longer cohere. Certain clouds give you the feeling you may have seen them before, but after all you have seen it is difficult to say if they are actually the same or have subtly or even drastically changed. Joseph Dubiel seems to be getting at the same experiences in his description of the opening of the 1981 solo piano piece *Triadic Memories*:

The effect is a little like hearing something just once and then turning it over in memory: replaying it with slightly different attention each time, the way one does, and noticing its changing aspects; and eventually no longer retaining an exact sense of how it originally was, except insofar as this sense survives in the aggregate of its slightly differing remembered versions. Only this doesn’t happen really in memory: it is “composed out” in the sounds, the progress of the music being like such a succession of versions.\(^6^5\)

To speak of a music this radically different from other musics requires rather severe adjustments to the usual set of tools we use as music analysts. First, ideas of development and progression will not apply in the ways they do with other music. Though there are progressive changes within and between the various patterns we hear in late Feldman, it is much more often the case that he moves abruptly from one to the next.

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\(^6^5\) “Uncertainty, Disorientation, and Loss,” *Beyond Structural Hearing*, pp. 185-186. I explore the opening of *Triadic Memories* in detail in the third chapter of this dissertation.
Though material will reappear in varied form, there is rarely a sense that the material is developing in any logical manner (though at times there is an impression that the material is falling apart entropically, patterns that once held failing to continue and falling into a less ordered world of component sounds).

Second, the idea of transformation itself must be problematized. When I hear two step-related pitches in late Feldman, I hear them in a far different manner than when the same two pitches are presented in a piece of tonal music. In a Beethoven melody, I hear a C going to a D, but in Feldman I hear a C next to a D. The restriction of the idea of transformation applies to timbral changes, as well. It is often the case in a late Feldman scene that a single note will recur with subtle timbral differences. Perhaps the bowing of a cello note shifts from the bridge to the fingerboard, or a natural or artificial harmonic replaces an ordinary version of the same pitch. Perhaps the register of a piano chord shifts by one or more octaves, but the chord’s shape remains the same. Here again, I find it fruitful to consider this not as a change in the object so much as a change in our orientation toward the object. I think of the timbral shifts between bowings as akin to the shifting visibility of the stars in the sky due to fog or clouds. I think of an octave shift as analogous to viewing a single panel in a Calder mobile from the first, second, or third floor of the museum. In both of these cases there is an implicit preliminary step of imagining our attention portrayed, followed by a second step of imagining a portrayed transformation of that attention.

In listening intently to late Feldman, I enter a world in which an almost visual attention is depicted aurally through linear time. With clouds or rugs or art, you can move
your visual attention at will. But music is more bound to time’s arrow. It has to take place in what I call linear time (not linear sense-making, but the unavoidable fact that time moves in only one direction). The linear direction of time becomes the axis along which Feldman himself guides your attention here and there, to different parts of what seems to be a pre-existing “sound canvas.” He does not direct your attention with pinpoint accuracy, but does something more like moving your perceptual frame as a film might—he moves the shot around, sometimes smoothly, sometimes with jumpy editing. The listener, of course, still has attentional freedom within the frame, and the way one’s attention is drawn to the different objects or clusters of objects can change from hearing to hearing, resisting efforts to pin down any one attentional path as the most salient or most important. To put it somewhat colloquially, the pervasive feeling of the long, late pieces could be described as the continually updated response to the enduring and perplexing question: Where am I?

VI. Methodology

To answer the question “Where am I?” one usually begins by accessing a map. As no map of Feldman’s long, late pieces existed, I endeavored to create one of my own. I chose as the territory for this map the 1981 piece for piano and cello called Patterns in a Chromatic Field. I started with this piece because it instanced many of the ideas I had formed from more general listening, and by long, late Feldman standards, its length is a
manageable hour and twenty minutes. I then made a decision based partly on necessity: no score was readily available, so I started an intensive analysis of a recording. Although I later obtained the score and used it to refine my ideas, the initial approach was based purely on listening to the sounds themselves and put me in touch with the kind of sense-making I remain most interested in with late Feldman. It often strikes me that looking at Feldman’s scores fails to get at the kind of sense late Feldman makes. Rather, his musical world is one whose elucidation or interrogation is often better served by a primarily aural analysis.

My initial analysis consisted of an exhaustive set of hand-drawn illustrations, one for each “scene” in Patterns in a Chromatic Field. I drew representations of sonic objects in each scene using visual shapes that made intuitive sense. I used a blue pencil for the piano and a red pencil for the cello to record a representation that seemed to fit my aural impression of the scene in question. In so doing, I hit upon many of the ideas that I will explore in greater detail in chapter 2: the frame of the scene, the warps in timing both within and between patterns, the cyclical order structure I call “annular time,” and, perhaps most importantly, specific ideas about relating the sonic objects to one another across any and all pertinent musical dimensions, including pitch, pitch-class, timbre, and a spatialized idea of time.

66 The Tzadik Records version featuring Charles Curtis on cello and Aleck Karis on piano was the only available recording when I began, and remains my favorite.

67 The concept of “scene” was something I came up with intuitively in response to the abrupt changes from one idea to another that mark the aural surface of the piece. “Scene” allows me to avoid standard music-theoretical formal designations based on a compositional rhetoric that doesn’t apply to late Feldman, instead drawing on the idea of the visual scene from cognitive psychology. At the same time, there is a filmic metaphor in the word “scene” that is quite appropriate. With each sudden break to a new segment, I feel as though the setting has changed, as though I am now witnessing something wholly separated from what came before in time and space, as a film might cut from era to era or continent to continent.
There was also a phenomenological prejudice in doing without the score, at least initially. I believe it is in keeping with Feldman’s own artistic spirit to limit the focus to the surface and materials at hand, rather than listening for any precompositional ideas outside the transparently audible. Having done the bulk of my initial analytical and theoretical work without the score has helped me keep this focus on the musical surface. That is not to say one cannot find items of interest in Feldman’s scores; on the contrary, his use of “the grid” is an important part of understanding his late work, and a worthy area of study in its own right. However, my own approach is decidedly phenomenological and aural, and many of the connections one might make in examining the score have only a tangential impact on the heard experience of the piece.

I have reproduced a page from my initial analysis as Figure 1.30 and the corresponding excerpt of the score in Figure 1.31 (CD tracks 6-11). A quick glance at Figure 1.30 reveals a lot about my methodology. Box-shaped objects represent the piano chords in Scene 90, breaking the chord down to a bass note quite far removed from an upper set of notes. Between these two components of the piano threads a longer, softer line representing the cello’s quiet drone. The grace notes preceding the piano chords in Scene 91 seem to me like small satellites, attached almost gravitationally to each more massive piano chord, whereas the cello in this scene oscillates between two soft notes whose pitches are represented by vertical placement and whose dynamic envelopes (a quiet beginning and ending to each note) are represented by thickness. In Scenes 90 and

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68 The role of “the grid” was one of the subjects that Bunita Marcus suggested would make a good dissertation topic at the end of her 2011 lecture “Structure and Notation in the Music of Morton Feldman.”
I have added a hazy reverberation after each piano object, representing the partial sustain of the half-pedal (this lightly shaded aspect is difficult to see in the scanned reproduction). Scene 92 does not earn its own larger depiction, as only the specific pitches of the two rounded cello notes have changed. However, Scene 92 is included at the bottom of the figure where I wrap up my analysis of the past several scenes.

Temporal relationships between objects are noted in several ways. Solid lines with hash marks represent the reliable, metered aspect of recurrence between piano chords in Scene 90. The direct relationship between grace-note and chord in Scene 91 is represented simply as a solid line. This solid line represents the assuredness of the connection: each grace note clings tightly to the chord it precedes in a predictable and repeatable fashion. The relationship between grace note and chord is the only reliably metered temporal relationship to be found in Scene 91. Since the composite piano object (consisting of both grace note and chord) and the cello notes do not recur in such a metered or predictable way, there are no solid lines with hash marks as in Scene 90. Instead, a short prose note describes the rhythmic arrangement of the scene: “after first piano chord, every cello note gets one chord, but at various relations in time (always towards the end).”

Certain sonic objects reappear throughout *PLACE*. The boxed numbers along the right side of Figure 1.30 note other scenes in which the sonic objects from Scene 90 can be found. Objects may also carry through from one scene to another in either the piano or cello, or new objects may be organized in a similar way for several scenes. At the

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69 The references to specific pitches in the depiction are later additions, from another stage in the analysis in which I did access the score.
bottom of the page I jotted down snapshots of the past few scenes to get a slightly more “bird’s-eye” view of the immediate surroundings. From this vantage point, I could note the ongoing set of new ways the cello notes seem to thread between, over, or through the piano objects.

Representing scenes with as few visual objects as possible was an intuitive approach that led to the concepts of annular time and the aural plane, for such snapshots become possible only by noting a certain pattern in each scene. To hear such a pattern is to hear a certain sameness in the sonic objects which recur. It is only a short leap to imagine the music as taking place in an atemporal space in which these recurrences seem less like active repetitions and more like further glimpses of the same static objects, a concept central to my understanding of the scenic late works. By considering the pattern as the subject of a scene, and by incorporating temporal flexibilities into a static picture (as with Scene 91), I thus achieved a first approximation of what I have called the “aural plane.”

In Figure 1.32 I reproduce another page of my initial analytical drawings, this time covering Scenes 99-101, the score for which are found in Figure 1.33 (CD tracks 12-14). In each of these three scenes, the cello has an ongoing oscillation I call a WIGGLE, which takes place in various relationships to piano chords whose structure I describe as THIS-THAT (similar to chord structure A in Figure 1.29). The cello is represented by a jagged line, while the piano chords are represented as pairs of blocks. The solid line between the lower blocks (THIS) and the higher blocks (THAT) represents their constant temporal relationship: within each scene, every time we hear a THIS, a THAT follows at a
predictable offset in pitch and time. While I later pinned down the exact pitch makeup of the chords, this was impossible to hear in my preliminary aural analysis. I was, however, able to hear their register quite clearly, and thus to relate the cello’s register to the piano’s across the three scenes. In Scene 99, I drew a cross-section of a pipe or conduit with a jagged red line running through it (the right-most picture on the page). This was the impression I got from the cello’s registral location between the low THIS and the high THAT. In Scene 100, the cello’s jagged line becomes a regular oscillation between two notes that starts out slowly, then speeds up. The cello is now located registrally on top of the two piano chord-objects. In Scene 101 the cello is once again a more flowing WIGGLE located registrally between the two piano objects, again giving the impression of being contained within the piano’s sound. Now the two piano objects are more widely dispersed in pitch, so the pipe or conduit is wider (the bottom-most picture on the page). The three scenes exhibit some continuity from one to the next. I described this continuity in terms of a river (center of the page): “Like a river flowing through [a] med.[ium]-size[d] gorge, then into [a] narrow channel or off to the side . . . then out into [a] wide-open canyon.”

In examining the score for these three scenes, I was able to pin down the exact pitches of the piano chords and the cello line. I found that they did not add to my experience of the passage. Chief among the score-based observations one might make is the exact retrograde relationship between the cello in Scene 99 and the cello in Scene 101. In this case the score only amplifies an observation easily made without it. The trio of scenes are organized in a somewhat symmetrical fashion—a “crippled symmetry.”
The cello goes from a three-note WIGGLE to a two-note oscillation and back, and the piano’s THIS and THAT go from a wide spacing, to a narrow spacing, and back to a wide spacing. But the spacing of piano objects in Scene 101 is wider than that of 99, and the cello line itself is lopsided in Scene 100, destroying the sense of exact symmetry we might otherwise find. To notice the retrograde relationship between the cello in Scene 99 and the cello in Scene 101, then, does not do much to change the aural experience of the passage, but it does add another level of complexity to the idea of a crippled symmetry.

In all I made 165 drawings, one for each scene. During this process I was struck by the wealth of nuance to be found in every scene. Many scenes took up several pages in my drawings. I soon discovered that the super-abundance of depicted detail posed a much more difficult analytical challenge than the sheer length of the piece. Organizing scenes into groups and families proved difficult, as there were so many gradations of sameness and difference between similar scenes, and hence it was often difficult to say which belonged to a family and which did not. This confusion is an important part of the experience of scale in the long, late pieces, and I would hesitate to put forth any final judgments on how to categorize each scene. However, I have included in Appendices B and C a provisional typology of scenes as I experienced and named them.

In the second chapter of this dissertation, I will explore in greater detail the concepts of the sonic object, the way various objects are arranged in patterns, and the way patterns form scenes, using short examples from Patterns in a Chromatic Field and String Quartet II. In the third chapter, I will examine a much longer scene that opens the piano

70 A complete table of scenes by score location and timing in the Tzadik recording can be found in Appendix A.
piece *Triadic Memories*, attempting to derive more general ideas from a bottom-up phenomenological approach. In the fourth and final chapter I will describe the experience of listening to an entire long, late piece using three long-range listening strategies.
Chapter Two: Object, Pattern, and Scene

I understand the world of a late Feldman piece as a series of scenes, often set off from one another quite starkly with little or no sense of progressive unfolding from one to the next. The scene can be thought of as an envelope containing all that is perceptually at hand in a certain place. What sets one scene off from another is a difference in what is present, be it a new or partially new set of objects or actions, or a new pattern to the layout of these objects or actions.

A scene is composed of one or more auditory streams populated by sonic objects or ongoing sonic actions. These objects and actions are, to a greater or lesser extent, arrayed in patterns. In the simplest scenes, such as those in which a single piano chord repeats several times, the hierarchical categories of stream and pattern collapse into one another: the repetition of the object becomes not only a very simple pattern but also the entire content of both the single stream and the scene as a whole. In the most complex scenes, there may be two or more separate streams of activity in which objects exist alongside actions arrayed with varying degrees of audible patterning, from very regular reiterations of an annular time structure to seemingly random wanderings from one note to another.

In this chapter I explain the concepts of objects, actions, patterns, streams, and scenes. For the most part, I explore how these phenomena arise in Patterns in a Chromatic Field (PIACF). As a rule, PLACF has stark boundaries between scenes and a clear texture that allows the sonic objects and actions to be identified distinctly with relative ease, in contrast to a less audibly sectionalized piece such as Coptic Light. The variety of scene and
pattern types in *PLACF* is limited, as are the objects and actions which populate those scenes. Most of the scenes are easily reproduced in score or graphic form on a single page, and hence I can easily avoid a common problem in Feldman analysis, in which the great scale precludes a more inclusive look at an entire piece or, in some cases, even an entire scene. *PLACF* has a more energetic pace than is usually found in late Feldman, at times sounding almost frenetic. Despite these unique characteristics, the piece has much in common with the longer, slower pieces in both construction and effect. Because *PLACF* accomplishes in a shorter time many of the same effects as the longer pieces made of longer scenes, it makes an ideal “laboratory” piece for a study that can then shed light on its longer counterparts. As already noted, the piece has a total of 165 scenes by my count, with several points where the segmentation is not entirely clear, so that total could easily be more or less by twenty or so. For the purposes of analysis, I have numbered the scenes chronologically, with references to the score and locations in the Tzadik recording listed in appendix A.

I. How Objects Appear

As I worked through *PLACF*, I began to collect sonic objects into a menagerie of sorts, for many of the objects seemed to reappear with or without modifications throughout the piece. I represented objects in this menagerie in prose and in a more intuitive graphic shorthand (illustrated in Figures 1.30 and 1.32). For example, I imagine and represent the
hard-sounding chords in Scene 7 as rectangular objects, as in Figure 2.1a (CD track 15). The softer chords in Scene 18, in which the sustain pedal is fully depressed, seem rounded, as in Figure 2.1b (CD track 16).

A closer look at the score for the rectangular objects in Figure 2.1a reveals a simplification in the illustration. I have left out the grace notes, because I hear them as part of the object depicted by each rectangle. To think of the grace-note chord and the larger chord as forming a composite object is to think of that composite object as having one solid edge at its end but a double edge at its beginning. I borrow a term from the percussionist’s vocabulary and refer to this sort of arrangement as a FLAM. The word “flam” is in a sense onomatopoeic, in that the nuclear vowel is preceded by two consonants and followed by one. The phonological structure of the word parallels the sonic structure of the composite chord I call a FLAM in PLACF. This phonological tangent draws attention to two of the phenomenal aspects of objects that interest me: the edges of sonic objects, and the adhesion of objects through temporal, pitch, or timbral proximity. Other aspects include the occlusion of one object by another, and the opacity or transparency of objects.

Objects have edges. Edges appear in several dimensions. In time, there are front and back edges. The front edge, or onset of a sonic object, can be hard (attack) or soft (fade-in). The back edge of an object, its offset, is different, given the physical realities of the instruments involved. It is difficult to make as sharp an edge at the end of a sound as at the beginning—there is more noise at the beginning of a sound. Also, for a piano,

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71 The percussionist’s flam, as mentioned in chapter one, is a composite attack composed of a main note played by one hand and a very quick grace note preceding the main note in the other hand.
there is decay to consider. Nevertheless, there are a number of different back edges that can be discerned (see Figure 2.2). A chord might ring for a certain duration and stop (Figure 2.2a); it might wane for a long time and still make a clean edge (Figure 2.2b); it might sustain until it dies out (Figure 2.2c); or it might be interrupted by another, occluding sound, in which case we cannot be sure what the back edge would have sounded like, but can perhaps hazard a guess based on context (Figure 2.2d). Sometimes the cello has little shakes at the end of a sound—a sort of ragged edge (Figure 2.2e). The piano often uses half-pedaling to make a partially blunted, partially sustained edge. This kind of edge is like a sieve or a filter, or like thinning scissors: there is a clean offset for the bulk of the object, but certain aspects get through and continue on (Figure 2.2f).

There are also edges in the pitch dimension: a rectangular chord has a certain top and bottom to it. These edges do not always line up simply with the top and bottom note as written. The resonance from closely-packed chords is often enough to add an aura above the top written note, so that while the bottom might be a hard line, the top might be a bit wispy. The cello has different sorts of pitch shapes as well. At times it seems like a thin, pure line. Other times there is enough noise in the bowing (e.g., sul ponticello or artificial harmonics) that again, there is an aura around the pitch, making it seem more like a cylinder than a straight line.

There are also timbral edges. In *PLACE*, there are only two distinct instrumental timbres (cello and piano) in play at any given time, so what is evident is not difference along a scale, but just bare difference itself, a nominal category we have already encountered in Hanninen’s $S_1$-timbre and $S_2$-timbre criteria. Still, the timbral edges are not as
cut and dried as it would seem by simply saying the piano is here and the cello is there. Sometimes they blend to an extent that it is hard to tell one from the other—they overlap. Sometimes they seem much further apart. And often one of the instruments will create two timbres in the same scene, as when the cello alternates between pizzicato and arco notes.

Similarities can also define objects. It is often the case that I hear a group of objects as being somehow also the same object, though their edges in one dimension or another differ with each iteration. There are a number of scenes in the second string quartet in which despite hearing a series of chords composed of different pitches as different objects, I also hear them as occupying the same spatial position in the scene each time. Instead of hearing a transposition as a transformation of an object, or as another object altogether, I think of a slightly different point of view on a stationary object. Another way to hear such a scene is to clump nearly identical objects together into populations, keeping their individual identities in mind while still counting them as part of a loosely defined family.

Actions, like objects, have edges. And like objects, actions can be held in a pattern, as in the BUBBLE-UP action discussed in chapter one (see Figure 1.3). But often actions lack a pattern, and it is this lack that in part precludes talking about the component parts of an action as individual objects, even with an extremely loose definition of the objects’ populations. More significantly, actions lack clear temporal edges between objects. By far the most common action in PIACF is what I call the WIGGLE (see Figure 2.3, CD Track 17). The WIGGLE is a twisting stream of notes flowing
within a thin, well-defined chromatic bandwidth, moving about more or less randomly within the confined pitch space and usually changing pitch at a constant or near-constant rate. At first, it struck me that the WIGGLE’s behavior, as opposed to that of objects like FLAMS, seemed to show some small bit of intelligence or agency—that it was a (slightly) intelligent creature moving about in a world of inanimate objects. In order to model this intelligence, I tried to write a set of rules to describe where the WIGGLE could go next based on where it was and where it had come from. It quickly became clear that I could not hear the stream of pitches as a coherent process obeying any such rules. Neither did it make sense to hear the WIGGLE as one object occupying the entire scene. In the end, I concluded that the WIGGLE lies between categories, not fully a process or clearly an object.

In Feldman’s music I sometimes hear another type of edge, one extended in time but often cutting across the dimension of pitch. This edge is the perceptual border between auditory streams, the independent “channels” of activity described by Bregman. According to Bregman, a scene with multiple objects is perceived as a single stream when it is heard as a progression of sounds. A progression is a type of audible organization in which the occurrence of each sound makes predictable sense. In traditional tonal music, most melodies occupy a single stream, because they are syntactically and timbrally coherent. In Feldman’s music, scenes with multiple objects form a single stream when there is a pattern.

72 In this case, rather representative of most of the WIGGLES throughout the piece, the otherwise constant rate of the cello is disrupted by the addition of a dot to one out of every four notes.

73 Auditory Scene Analysis (1990), Ch. 1.
When multiple objects in a scene cannot be fused into a progression, the auditory scene may be segregated into two (or more) separate streams. Objects are occurring and recurring in independent streams over the course of the scene, with no apparent logic or progression connecting the objects in one stream with the objects in the other. The listener constitutes an edge between the streams, a boundary across which no progression is heard. The edge thus formed is of a different order—it is an emergent property defined by readily apparent differences between objects and also by the gradually emergent independence of the populations. But, for example, say one hears an oscillation between two objects, one of which is quite low in pitch and the other quite high. The predictability of the oscillation is such that the listener can choose to hear a single stream (low-high-low-high-...) or can segregate the two streams by pitch and hear two concurrent streams (high-high-high-... and low-low-low-...). In the case of two oscillating sonic objects, a two-stream hearing can still be described as progressive, for the two streams share a predictable relationship with one another. I therefore call them “compound-stream” scenes. If, on the other hand, the objects in the low and high streams do not together form a predictable pattern, one is left only with a plurality of streams. For the purposes of this dissertation, I use the term “two-stream scene” for the latter type.

In some scenes, the distinction between two-stream and compound-stream is hazy. Sometimes I think there is a progression as the scene begins, but as I try and fail to grasp a predictable pattern between the two streams, the scene “pops” into two-stream mode. Sometimes a more stable two-stream scene includes the odd moment of a fleeting progression between streams, leaving the listener straining for a compound-stream
hearing that is not otherwise supported by the rest of the scene. Here, then, is another case of Feldman’s late music hovering between categories, between progression and non-progression.

In many two-stream scenes, one object seems to dominate. When one sound seems a lot smaller than the other, as in a thin, whiny cello swell repeated over a thick, sustained piano block, I hear the small sound as exploring different ways of interfacing with the large sound: it might rub up against the front edge of the large sound, or come right in the middle and be gone by the time the large sound repeats, or flam onto the large sound’s attack. I hear the recurrences of each object not as repetitions, but as different angles of attention, different glimpses of a fixed spatial arrangement. I get the feeling that there is really only one of each object in this space, and that I am hearing the two objects from various vantage points, as if I were walking around a piece of sculpture.\(^\text{74}\)

The objects and actions that populate streams are often held in place by “patterns.” Some patterns are very simple: a sequence of objects is repeated in the same order a number of times, or a single chord is reiterated over a drone. Others are more complicated and full of exceptions to the rule, as when a regular alternation of objects is thrown off by unexpected repetitions of one or the other object. Whether the pattern remains stable or fuzzy, what makes it a pattern is repetition. Yet I hesitate to use the term repetition, because what these patterns seem to do is to make repetition not feel at

\[^\text{74}\] A similar effect is produced in the book *As the Eye Moves . . . A Sculpture by Henry Moore* (1970), in which dozens of photographs (by David Finn) of the same Henry Moore sculpture from different angles and in different light situations are accompanied by brief poems by Donald Hall.
all like repetition, but instead like persistence. This will be explored over the course of the chapter; but for now I will define a pattern as “that which is repeated within a scene.”

Objects and actions suspended by patterns in auditory streams constitute scenes. My usage of the term “scene,” as mentioned in chapter one, stems chiefly from literature on the psychology of perception and attention, in which a scene is understood as a relatively stable set of objects and their background, immediately perceptible to the subject at a given time and place. For instance, my current visual scene includes the laptop computer upon which I type, half a sandwich, a disorganized heap of notes, a small stereo, the desk upon which these are located, and the wall behind that desk; around the periphery I vaguely see a piano, a window, and an electrical outlet. I understand this scene as existing independent of my being here: I could quit working for the day and come back tomorrow to something quite similar.

The scene in late Feldman is a more threadbare experience, populated by far fewer objects and actions than the visual or auditory scenes we encounter in daily life. It is not nearly so hard to say where the boundaries are, and there are rarely more than a handful of objects to keep track of. But in other respects I experience scenes in late Feldman in the same way I experience the more quotidian example above. When I leave a Feldman scene, for example, I do not get a sense that it has come and gone. When a scene returns, it does not seem to have appeared, but to have always been there. Scenes, in other words, are places. And the way I describe these places is not so different from how we describe geographical places. We name locales such as Grand Rapids, Poplar Grove, and the Eleven Point River, for instance, not for their location on a grid of latitude
and longitude, but for the sorts of objects (or, in the case of the river, even the sorts of actions) one finds there.

One need not know how to get from one scene to another in order to recognize scenes. I recall as a child I could never stay awake in a car. Whenever my parents drove me anywhere, I would fall asleep until we arrived. Nevertheless, I recognized the store, or my grandparents’ farm, or the creek crossing at Sand Run Park, or the bridge over the Cuyahoga River. This is the same sort of feeling I get with PLACF. Transitions are nearly nonexistent, and instead I am transported instantly from one scene to another, but the scenes are recognizable and familiar.

II. How Patterns Appear

One of the simplest types of pattern in PLACF is what I call a THIS-THAT pattern. In scenes populated by THIS-THAT patterns, there is an alternation between two sonic objects that I call THIS and THAT. The flow of undifferentiated alternation (THIS, THAT, THIS, THAT, THIS, THAT...) breaks into pairings based on repetition (THIS-THAT, THIS-THAT, THIS-THAT...). The repeated unit is the pair of objects THIS-THAT, and the annular time circle is created by the repetition. It is quite simple, but with most seemingly simple ideas in late Feldman, things get more complicated the closer you look at particular cases. Therefore, rather than continue with abstractions, I shall take a look at a few examples, beginning with Scene 50 (Figure 2.4, CD track 18). I begin with the score in
order to point out a few details, but the bulk of my analyses will be based on features that are easier to hear than to see on the page.

The nearly two-and-a-half-minute scene is composed of just two soft notes: a sustained D4 in the piano and a natural Fb5 harmonic in the cello. Immediately there is a disconnect between aural and score-based interpretations: to my ear, the two objects are separated by a whole tone. What can Feldman have meant by notating an Fb rather than an E? In certain cases, the enharmonic notations imply a subtle intonational difference, i.e., Fb would be a touch lower than E (the reasoning being that Fb is generally on its way to and thus a bit closer to Eb). In the case of the cello’s Fb, however, the actual timbre of the note is also affected, since the cello is playing a natural harmonic. Presumably, the performer plays the natural harmonic on the A string that would result in the note a twelfth above, but then moves the finger a bit further from the bridge to make the enharmonic adjustment. This tweak to the finger position prevents the string from vibrating in its truest three-part harmonic fashion, the way it would vibrate were the finger located at the “sweet spot” of the harmonic. As a result, the cello sounds a bit thin and strained throughout the scene. This is the first of many sonic facts not immediately obvious from the score.

Another confusing aspect of the scene as notated is the placement of the piano’s notes horizontally in the center rather than at the beginning of each bar. Here I take the purpose to be one of distracting the performer from the downbeat, in order to keep each note floating outside any sort of metrical interpretation. Feldman himself proves illuminating in describing the effect of these sorts of notational idiosyncrasies: “they are
also in part notational images that do not make a direct impact on the ear as we listen. A tumbling of sorts happens in midair between their translation from the page and their execution.”75 Another notational image that may cause the performer to deliver a less rhythmically carved performance is the seemingly regular pacing of barlines which obscures the constantly changing meter signatures, which vary both in number of beats and in lengths of beats. These notational quirks almost guarantee that the performer will fail to produce a completely accurate metrical performance. This failure in turn makes it difficult, if not impossible, for the listener to hear downbeats, another sonic fact not immediately obvious from the score.

To say a metrical performance is all but impossible both to play and to hear is not to say that timing is completely obliterated. At the very least, we retain a very simple idea of time: the succession of one event after another. Nor is expectation obliterated, for as the near-repetitions pile up in this scene, the listener begins to trust that each piano note will be followed by a cello note. In addition, the cello note is usually longer and often followed by an empty measure. This ensures that the order of onsets is heard as intact: piano, cello, wait, repeat. I call the first object THIS, and it is from the standpoint of hearing THIS that we can think of the second object as THAT. In other words, it is as though when we hear each piano note, we occupy its space. And when we then hear the cello above, we hear it from the vantage point of the piano note’s space.

The order itself allows the objects to be thought of as fixed in annular time (Figure 2.5). I hear a before and after, but my understanding of how much before and after

75 “Crippled Symmetry” (1981), in Feldman, Give My Regards to Eighth Street, p. 143.
is probabilistic at best: the piano note is always before the cello note, and the next piano note is always further after the cello note than the cello note was after the piano note. The circle in Figure 2.5, then, represents an annulated passage of linear time, but the exact lengths of each arc are only determinate to the extent of being larger or smaller. If we drew a separate circle for each repetition, we would find that the “THAT” dot moves within a certain tolerance. We might even take it upon ourselves to map out these moves, to look for a pattern in just how far and in which direction the dots move. And perhaps we might understand the circle itself as growing or shrinking with the overall length of each repetition. To make such a detailed trace of the warpings in the linear unfolding of the annular time structure would be to miss the point of the sort of analysis I am doing. My focus is on how a pattern is constituted when its elements are variable. The way I believe the listener achieves this pattern is by holding the objects in the scene in an aural plane, lining up each occurrence as though they are snapshots. Figure 2.6 illustrates the process: Figure 2.6a is an image of the first eight THIS-THAT occurrences. The horizontal spatial arrangement accurately reflects the timing of the performance in the Tzadik recording. The piano notes are represented as triangles to show their decay, while the cello notes are represented as rounded rectangles to highlight their softer attacks.

Though Figure 2.6a represents the events in linear time, I actually apprehend it in a fashion more like the series of individual snapshots in Figure 2.6b and c. In this hearing, a frame is created by repetition of the two objects, and then I begin to compare past frames to present frames. Comparing present to past frames is what must be happening conceptually for me to make observations such as “In the seventh repetition,
THAT came a little sooner than I expected it,” or “the fifth THIS came a little late.” By internalizing the annular time structure of the scene, I am able to overlay these snapshots on top of one another as in Figure 2.6c, effectively pulling past and future into a stable, albeit imaginary, present. This results in the aural plane of the scene, shown in Figure 2.7, in which the arrow-ended lines represent variable durations. The aural plane is understood as a tenuously stable adherence of the objects in a certain relation. This relation, though stretchable, warpable, and even explodeable, retains enough similarity through its reiterations that we can keep it in mind as one vibrating picture rather than as dozens of static ones. Figure 2.7, then, is the result of some cognitive activity and not a portrayal of any one thing you could point to in the music. The aural plane, that is, is constituted by the listener. In the aural plane of Scene 50, THAT seems to live entirely in the decay of THIS; THAT will always happen sometime in the life-cycle of THIS; and usually when THAT ends, we can still hear THIS decaying.

One effect of the varied timing of THIS and THAT in Scene 50 is the avoidance of establishing any sort of beat or groove. The aural planes in early Philip Glass or Steve Reich lack this temporal give and take. This is an important distinction, because when a repeated segment creates an aural plane with a beat, there is another aspect of time demanding as much attention as the annular time circle, and that is the pulse-based groove of the loop. A pulsating loop is more dynamic, more driven from beginning to end, and therefore comes across as more active and more the result of an action directed towards an end, even if that end is the continuation of the cycle and its momentum. The aural plane is in part broken down by such a groove, because a groove is something that
continues beyond the edge of the frame, beyond the sounds of the framed sounds themselves. By creating a groove, the sounds of a pulsating loop threaten to become another of Feldman’s “paraphrases of memory.” That is, they make a certain predictable rhythmic sense, a sense which is based on historical modes of music-making ingrained in the listener. As Feldman might put it, the pulsating loop listens for you.

Feldman’s avoidance of the pulse reflects his desire to keep the ear on the aural surface, on the framed objects themselves. To let a rhythmic groove train the ear beyond the objects at hand would be breaking Feldman’s guiding principle of keeping the focus on the sounds themselves, the musical version of letting painting be about paint and not what lies beyond it, a central principle of many of the New York School painters and so much a part of the critical stance laid out by Clement Greenberg.76

Now, to be honest, Scene 50 is murkier than I have let on through the representations in Figures 2.6 and 2.7. If you look ahead past the first eight instances of the pattern in Scene 50, you notice things starting to stretch and pull on the aural plane. For one thing, the timbre of the Fb seems to move into and out of focus as it is played in some cases as a natural harmonic and in others as a regular stopped note. In the Tzadik recording, the regular stopped note ends up sounding somehow “weirder” than the natural harmonic version. It is as though we had already been turning the object over in our attention, viewing it in various relationships to the piano note, and now we have uncovered another aspect we had at first missed. It is not as if there is a new object, but it also is not as if the object itself feels transformed in any directed way. Rather, it feels like

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76 Especially in “Collage” (1958) and “Modernist Painting” (1961).
a change in what Feldman might call the “light” that falls on the object. We have perhaps rotated the object in another direction, finding a way to glimpse it in a different light. Feldman has written about the musical translation of the idea of light and, in particular, representations of light’s refraction as he hears and sees it in the work of John Cage and Claude Monet:

Cage, as in Monet’s later paintings, has us look into the sun, so to speak: the refraction of his sound, like Monet’s light, slips from our ears into a nondelineated sound world. However, what is equally true for both Monet and Cage, “going into the sun” was predicated on the ability of both to accept change that is not of their making, rather than the transformation of ideas based in part on the psychology of hierarchical decisions unrelated to the unpredictable factors of, say, Monet’s ever changing refracting light.77

Feldman achieves what he calls refraction most successfully in his string writing, which frequently invites unpredictable timbral effects. Natural and artificial harmonics, particularly when mixed with Feldman’s enharmonic spellings, create a change in the “light” of the sound. In the second string quartet there is a great deal of quiet sul ponticello bowing (bowing just off the bridge rather than midway between the bridge and the fingerboard) as well as a great deal of sul tasto bowing (just off the fingerboard). Both types of bowing create unpredictable nuances in the sound. Sul ponticello notes in particular tend to break into overtones, creating a striking auditory analogue to the idea

77 “More Light” (1982), in Feldman, Give My Regards to Eighth Street, p. 150.
of light refracting, whereas sul tasto notes tend to take on a ghostly, floating quality.

Shifting the bowing of string notes can be understood as another way Feldman varies the unfolding of annular time structures, thus keeping the listener’s attention on the sounds of the sounds themselves. (Figure 2.18 is a scene from the second string quartet that embodies this sort of “refraction.”)

Much more startling than the subtle timbral change of the Fb is the situation in the second system of the second page of Figure 2.4, where THIS is played not once but twice before the next THAT. The aural plane is constituted through a piling up of individual glimpses, so situations such as a missing THAT expose aspects of how our attention works. When the cello’s THAT does not appear, I find myself experiencing its absence—not just a vague feeling of something missing, but an absence with a rather specific temporal and spatial location. It was just THAT object that I missed, and at just THAT time (with a bit of leeway for the temporal discrepancies that have become a natural part of the scene).\(^78\)

As Scene 50 begins, we are unaccustomed to the objects, so attention shifts from one to another each time a new object appears. The arrows in Figure 2.8a represent this shift in attention. A THIS-THAT pattern quickly emerges after two or three repetitions. As the pattern continues, we begin to assume its stability in annular time. Part of what we do when we constitute the aural plane is shift from an object-oriented to a location-oriented form of attention. Once we become accustomed to the attentional moves

\(^78\) Such warps in the pattern have long been a favorite topic in Feldman analyses, providing a point of entry for discussing “crippled symmetry.” I believe these warps actually help confirm the aural plane, rather than bend it or threaten its breakdown.
between objects, we realize we can do away with the linear time component of our attention and think instead of an alternation of attention between two spatial locations, as shown in Figure 2.8b. When we sense that the cello’s THAT fails to appear on cue, this actually confirms the spatial hearing, for our ears are already there waiting for the object. Hence much of what we are attending to must be the space itself, not the content of that space.

The degree to which a scene allows the listener to constitute a stable aural plane varies widely. Certain scenes never or only rarely break from their pattern, so I call them “stable scenes.” Stable scenes allow the listener to constitute an aural plane that is more or less static. Completely stable scenes, however, are the exception rather than the rule in late Feldman. On the other end of the spectrum are scenes in which order relationships arise in only the loosest probabilistic sense. I call these “mobile scenes.” There are also “action scenes” populated by ongoing actions such as the BUBBLE-UP or WIGGLE as described above, appearing alone or alongside other objects or actions. And as one might expect, there are scenes that fall somewhere between those categories. The remainder of this chapter explores these four types of scene.

III. Stable Scenes
Among the stable scenes in the repertoire are those in the second string quartet that I call the CHORD & STRAGGLER scenes. The score of one CHORD & STRAGGLER scene is shown in Figure 2.9 (CD track 19). The pattern that never alters throughout the scene is a three-note CHORD followed by a single, higher note, the STRAGGLER, occurring within frames that in this case align conveniently with the barlines. The constituent tones that make up the CHORD change, and the STRAGGLER pitch also changes, both according to no strict pattern I can hear or discern from the score. In Figure 2.10, I have reproduced my drawing of the first twenty-one frames of the scene. Literal repetitions are left out, the STRAGGLERS are piled on top of the CHORDS, and the pitch and pitch-class content are mapped in vertical space and color. The CHORD objects are connected and shaded, with lines connecting them to the higher STRAGGLER objects. The timing of events within the frame is omitted from Figure 2.10.

Figure 2.10 reveals some stable aspects of the scene. One of the three pitches that make up the CHORD frequently remains stationary for several frames, as with the top note over five of the first six frames and again in frames 9-15 (with the exception of frame 11). The STRAGGLER oscillates in frames 10-18, but this oscillation is not necessarily audible as a progression given the fact that each frame is repeated four times, during which the memory of previous frames is likely to dim. The CHORDS and STRAGGLERS for the most part occupy a fairly consistent registral area, with notable and surprising exceptions in the high STRAGGLERS of frames 4, 7, and 9, the extremely low bottom note of frame 12, and the low register of the entire 8th frame, where the STRAGGLER lies in the usual range of
the CHORD and the highest CHORD notes lie in the usual range of the lowest CHORD notes. The rhythmic layout of the frame varies slightly from frame to frame. The notated meter shifts between 1/2 and 5/8, with the CHORD striking either on the downbeat or delayed a sixteenth rest from the downbeat. The STRAGGLER comes in on either the second quarter note or the second triplet quarter note of the measure. Without a secure sense of meter, however, a listener cannot easily discriminate the differences represented in the metrical notation. Rather than hearing objects in relation to a metric grid, we hear each STRAGGLER as entering sooner or later in relation to the CHORD, and each frame as longer or shorter than the previous one.

Other subtle variations emerge when we listen more closely to the first six frames. Comparing frame 2 with frame 1, we might first notice that two pitches have remained constant, while the bottom CHORD note and the STRAGGLER have exchanged pitch-classes while retaining their registral position. Also, the frame is a bit slower, both in total duration and in offset between CHORDS and STRAGGLER. In the third frame, we return to the rhythmic organization of frame 1. Now the top note of the CHORD is the only literal holdover from the preceding frame, with the remaining three notes again exchanging pitch-classes but retaining their registral positions. The fourth frame finds us once again back to the rhythmic layout of the second frame, and once again the top note of the CHORD remains the same. The other notes in this object, though, shift in register. The bottom two notes of the CHORD move up to crowd beneath the top note, and the STRAGGLER is notably higher than it had been. Also, we have the first new pitch-class since the first frame, the middle note’s B#. In the fifth frame, the CHORD retains its pitch-
classes, putting the top two notes in the space where the bottom note lay in frames 1-3, and the bottom note outlying below them. The sixth frame returns to the form of the first three frames, in fact repeating the pitches but not the rhythm of the third frame. But I do not find that this return is directly audible, because the intervening repetitions of frames 4 and 5 cloud my memory of what came before.

To understand these frames as forming a stable pattern despite the small and large pitch variations and rhythmic flexibility requires thinking once again in terms of Hanninen’s idea of populations. In this case, I group the frames into populations of CHORDS based on simultaneity and STRAGGLERS based on contiguity, as well as a rising contour relationship between the two. Thinking in terms of populations allows us to hear the wide variety of chords and single notes as members of a CHORD family and a STRAGGLER family, and this then allows us to hear enough regularity to form a stable aural plane. The pitches obviously change from one chord to another, a fact that is likely to attract the attention of music analysts, who are accustomed to tracking pitch changes especially. Even without the aid of usual models of voice-leading and progression, one might fruitfully examine the sequence of pitches in this scene, perhaps in the manner in which Hirata examines the “touch” of individual chords in Feldman’s earlier piano music.\footnote{“The Sounds of the Sounds Themselves: Analyzing the Early Music of Morton Feldman.” \textit{Perspectives of New Music} 34/1 (1996), pp. 6-27.} Using such an approach, we could characterize the experience of each frame, but we would have difficulty describing the overall feeling of the scene. The attentional move from CHORD to STRAGGLER seems of central importance, and I do not need to hear these chords as intervallically related in order to hear what I consider the main
subject of the scene: a shimmering, multichromatic, low, lushly full CHORD followed by a brilliant laser beam of a high pitched STRAGGLER. A closer look at the exact pitches of the chords might afford a more precise definition or delineation of the population’s criteria of identity, but once I am willing to assimilate the pitch changes into the identity of the objects, I am able to notice that this scene never strays from its strict order of CHORD-STRAGGLER. The two objects are perceived as very strongly linked in annular time, and therefore the linear time aspect recedes in importance. Dubiel’s idea of turning over the objects in one’s memory takes on a new aspect in this hearing: we hear not only subtle rhythmic variation, but also a wide array of pitches doing the same pattern work.

Within my imagined aural plane, the linear time dimension gradually disappears (reflected in the lack of horizontal offset between CHORD and STRAGGLER in Figure 2.10). The after-ness of the STRAGGLER is important as the pattern emerges, during which time my attention moves in an object-oriented manner from CHORD to STRAGGLER again and again. But once my attention is trained to the spatial location, this temporal aspect recedes in importance. Instead, I constitute an extremely stable aural plane in which the STRAGGLER lies at a distance from the CHORD that is not necessarily defined by temporal dislocation. I cease to attend to the STRAGGLER as an object that follows the CHORD, and instead attend to it as an object existing in a space at a certain more or less fixed distance from the CHORD (see Figure 2.11). This spatial distance between the CHORD and STRAGGLER is difficult to measure, since it is not strictly a distance in the pitch or time dimensions. Instead, the distance lies in the fictive space of the aural plane itself, a fictive space in which the dimensions of time and pitch are conflated. When we cease to listen
for movement, or for development, or even for consecution, we are left with a space that
indeed seems quite unfamiliar in comparison to the usual musical worlds we inhabit. In
this respect it seems Feldman has been particularly successful in problematizing not the
sorts of material that ordinary music takes as its building blocks, but the type of space in
which these materials make sense.

**IV. Mobile Scenes**

In a stable scene, I become acutely aware of my own attention shifting from a targeting of
objects themselves to a targeting of the position of those objects in an annular time
structure. To hear that annular time structure is to hear a “progression” in Bregman’s
sense: our attention moves consistently and predictably from one object to another. One
could argue that a progression, through its predictable repetition, helps the listener build
up a spatial idea like that of Figure 2.11, in which we hear a stable, fixed relationship
between the space occupied by THIS and the space occupied by THAT.

In mobile scenes, the spatial understanding of the aural plane is constituted in
almost the opposite way: one attempts to connect the objects but fails, and in this failure
one comes to understand their relationship by targeting the spaces objects occupy rather
than the objects themselves as they are occupying those spaces. Take Scene 82 of _PLACF_,
for example (see Figure 2.12, CD track 20). Scene 82 is what I call a THIS | THAT scene. I
use a vertical bar in place of a hyphen to indicate a lack of coordination between THIS
and THAT. The vertical bar in the name points up the impossibility of hearing a
progression (in Bregman’s sense) between the two objects. In Scene 82 we are presented
with a harsh piano chord (THIS) and a plucked cello note (THAT).\footnote{\textsuperscript{80} I assimilate the lower and upper parts of the chord as well as the flaming effect of the grace notes into the idea of the chord, but later there will be reason to take a closer look at the composition of THIS.} As I did in Figure 2.8a, I could draw a line representing object-based attention bouncing back and forth between the two objects. It would be impossible, though, to make the sort of “snapshots” I made in Figure 2.6, since there is no repeating frame I can put around any portion of Scene 82 smaller than the eight bars that Feldman encloses with repeat signs.\footnote{\textsuperscript{81} I need hardly point out how difficult it is, if not impossible, to hear the repetition of these bars as a repetition.} But the failure of my attempts to repeat a patterned attentional move from the space of THIS to the space of THAT does not preclude the constitution of an aural plane. Instead, the very frustration I experience in grasping after a progressive pattern leads me in its own way to the constitution of an aural plane. As I give up hope for a progressive interpretation, my point of view shifts. I begin to take in populations rather than individual instances. Instead of hearing simply an unpredictable back and forth between THIS and THAT, I perceive two distinct streams of objects that share little beyond the fact that they take place within the same scene, and I come to think of any fleeting near-patterns, simultaneities, and relationships between the two as they play out in linear time as accidental (Figure 2.13a). Here is the realm of THIS, and there is the realm of THAT: separate but equal streams, if you will. In recognizing and hearing this separation and equality, I build up an idea of space similar to that depicted in Figure 2.8b, only now without the staggering in linear time, which itself was predicated on the ability to locate
the objects in a relatively stable repeating annular time structure. In Scene 82, the two objects cannot be located on the same annular time circle, and so the spaces they inhabit cannot be thought of as separated along a temporal axis. When I shift into a space-based hearing of a two-stream scene such as Scene 82, it is as though I take a step back, and rather than hearing each individual object, I direct my attention to the overall complex, to two lanes of activity, which I can take in at once only by giving up the attempt to hear progression (Figure 2.13b).

Within each stream, however, the annular time is intact. In the cello’s THAT stream, annular time is at its simplest: one object is repeated in something other than a groove (the repetitions are notated in two groups of equidistant notes, but a pulse is not audible in performance). The piano’s THIS is more complicated. If we imagine the grace notes in both hands as forming one larger grace-note complex, then we can imagine the piano itself as arrayed in its own THIS-THAT pattern: a quick grace note THIS followed every time by the main chord THAT. The annular time for the entire scene, then, can be pictured in two separate circles, each unfolding in its own place with no apparent relationship to one another; no linking of the two circles as we found in Figure 1.26 between the piano and cello in each sounding measure of Scene 6 (Figure 2.14).

If we look even more closely at the piano chord, things become more complex. The chord is made up of a higher and a lower dyad, each preceded by a grace note dyad. A traditional pitch analysis might stress the importance of pitch-class relationships: the top chord dyad has the same two pitch-classes as the bottom grace-note dyad (D# and Gb), and the bottom chord dyad has the same two pitch-classes as the top grace-note
dyad (E and F). Beyond lending a sort of sonic consistency to the overall chord, these pitch-class relationships seem relatively unimportant. One can easily imagine a different makeup to the chord working just as well with the scene. The same goes for the pitch-class of the cello note, which might be read as expanding the piano’s chromatic tetrachord (D#-E-F-Gb) to a chromatic pentachord (D#-E-F-Gb-Fx).

To hear the entire piano complex as a single entity, the listener must interpret the audio scene. Bregman refers to the process of connecting parts of the audio scene into auditory objects as “integration,” which can take place vertically (with regards to pitch) or horizontally (with regards to time), both of which come into play in hearing the piano in Scene 82. Figure 2.15 is a spectrograph that shows the raw acoustical data of the first seven bars of Scene 82. In order to reach the stage of analysis shown beneath the spectrograph, the listener must do some perceptual work. Vertical integration creates dyads both because the pairs of notes are quite close in absolute pitch, and because they are closer to each other than they are to any other pitches around them (Hanninen’s S₂-pitch criterion). Horizontal integration connects pairs of notes sharing the same onset point (S₁-attack) and temporal span (S₂-duration), though by itself this is not enough to single out each dyad. Indeed, in the heard experience of the scene as performed, horizontal integration glues together the two grace-note dyads into a larger whole, and likewise the two chord dyads. Horizontal integration again comes into play in tying the composite grace-note object and the composite chord-object together into a FLAM. Hearing the FLAM is aided in addition by timbral integration. Though the two halves of the chord-

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82 Auditory Scene Analysis (1990), Ch. 1.
object are quite removed in pitch space, their shared timbre aids the listener in bringing them together into a single unit. We also use timbral criteria to “dis-integrate” the cello note, which might have been vertically integrated with the upper grace-note dyad if it were not so different in timbre.

Scene 83 (see Figure 2.16, CD track 21) is in one sense a continuation of Scene 82. The same cello continues to populate the scene sporadically, again in no apparent relation to the piano’s chords, but now has changed. The bottom half of (grace-note dyad and chord dyad) appears in a higher register and is initiated a sixteenth note after the upper half. The two halves are now audibly disintegrated, and it is possible to hear the piano as having a stable pattern of its own. Within each pair, order and temporal proximity are retained, but the new horizontal space between the pairs has broken them apart. The annular time hinted at by the grace-notes in Figure 2.14 now suggests itself to the listener much more strongly.

Since the piano unit fails to form a progression with the cello’s, I categorize this type of scene as “|THIS,” with the vertical line again showing the lack of coordination between the two streams.

What is especially intriguing about Scene 83 is how it retroactively changes my hearing of the previous scene. In Scene 82, I integrated the entire piano complex into a single chord-object, and nothing told me not to integrate the piano object both vertically and horizontally. In Scene 83, the registral shift and time shift create the sense of two halves when there was no such sense before. And so now I think retroactively back to Scene 82 and imagine the bottom half of the chord as behind, or as unconnected to the
top half. It is as though the bottom half has stepped up (in pitch) and out (in time), asserting itself as its own object, and making us realize that even in Scene 82 it was potentially its own object (see Figure 2.17). The experience is similar to the famous Buster Keaton scene in which two approaching headlights turn out to be two motorcycles rather than a car, so we retroactively adjust the way we saw the pair of lights in the first place based on new evidence.83

In the scene from *String Quartet No. 2* shown in Figure 2.18, I initially hear an oscillation between two notes that are roughly a whole step apart, punctuated by a single, low cello pluck, a pattern I call THIS-THAT—THE OTHER. The order relationship between THIS and THAT (the two held notes) is constant, and THE OTHER (the cello pluck) always occurs once per THIS-THAT pair, but THE OTHER sounds sometimes before, sometimes during, and sometimes after THIS-THAT, thus confounding attempts to construct a reliable sense of progression between the three objects. Hence the stream segregation is blurred: the pluck moves around enough that we could easily hear it in a separate stream, but since it always happens once per THIS-THAT, we can also assimilate it into each THIS-THAT snapshot and form a relatively stable aural plane. Each snapshot of this plane has the same set of objects, but one of the objects tends to move around at each glimpse, not unlike the spheres and panels of a Calder mobile in motion.

Due to variation in the bowings, the THIS-THAT stream itself becomes the object of “refraction” as the scene unfolds. Sul ponticello bowing is naturally more wispy and quiet than ordinary bowing, so in the second measure I hear the faintest whisper of the

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83 One of several botched suicide attempts in the dark comedy *Hard Luck* (1921).
first violin’s THIS continuing on behind the second violin’s THAT. This makes me retroactively doubt my hearing of a progression from THIS to THAT in the first measure. My doubt grows in the third measure: the viola’s THAT is now the wispy member of the snapshot, and the second violin’s THIS is heard loud and clear behind it. In the fourth measure, I no longer hear an oscillation, but a placing of two objects side by side. There is no overlap in the fifth measure, so I return to hearing the oscillation. What happens as the scene unfolds is a confusion as to whether I am hearing two objects side by side, or one object transforming in pitch.

V. Action Scenes

While the confusion in the quartet scene, between whether we hear one object in an action (a moving up in pitch) or two separate objects side by side, is a confusion that is often thematized in a late Feldman scene, there are many scenes in which I can clearly discern an ongoing process as an “action.” In PLACE there is a family of scenes that include the action I call the WIGGLE (Figure 2.19). This action might even be called a motif, if one can use such a word for Feldman’s scenic sound art. WIGGLE first appears in the cello in Scene 1 (see Figure 2.20, CD track 17). It continues over different piano objects in Scene 2, and then appears in a higher register over another set of piano objects in Scene 3. It then appears quite often in various guises throughout the piece, all in all
taking place in 39 of the 165 scenes. (Figure 4.1 shows how WIGGLE scenes are
distributed over the course of the piece.)

There are a number of reasons why I want to call the WIGGLE an action instead of
a series of individual objects. One important quality of what I call actions is something
akin to Cage’s and Rauschenberg’s “all-over.” An action fills a scene. I could look at any
portion of that scene and recognize the action as part of the same ongoing activity. In
the WIGGLE, the notes do not remain sonically separate from one another: it is a wiggle of
the finger that creates small portamento glides between notes that I experience sonically
as the WIGGLE. Another part of what motivates calling something an action, then, seems
to be the audible trace of its enaction by the performer, the sound-producing agent. But I
find it difficult to say whether the WIGGLE is something that is done or something that
happens.

Jean-Paul Sartre hit upon a similar indeterminacy when he described the motion
of Calder’s mobiles as capturing a “Nature which refuses to reveal to us whether it is a
blind succession of causes and effects, or the timid, hesitant, groping development of an
idea.” We are faced once again with the space between categories: between object and
action, between doing and being. Sartre’s further comments on the mobiles of Calder
could easily describe Feldman’s actions:

A “mobile” does not “suggest” anything: it captures genuine living
moments and shapes them. . . These hesitations, resumptions, groupings,
clumsinesses, the sudden decisions and above all that swanlike grace make

of certain “mobiles” very strange creatures indeed, something midway between matter and life. At moments they seem endowed with an intention: a moment later they appear to have forgotten what they intended to do, and finish by merely swaying inanely.\textsuperscript{85}

In Scene 1’s version of the WIGGLE (Figure 2.20, CD track 17), the cello plays four notes per bar, always one each of Bbb, Ab, Fx, and A#. But neither the distribution of each pitch per measure nor, more fundamentally, the location of each barline is an audible aspect of the notated scene. As mentioned earlier, the spellings require the performer to make subtle pitch adjustments, for Feldman meant them to be \textit{directed}—that is, a Bbb should be lower than an A and an Fx should be higher than a G, since the altered notes are typically written when on their way to Ab and G#, respectively. Writing notes that are meant to be played as though directed, but which seldom if ever go where they are directed, accomplishes in the pitch dimension something similar to the rhythmic effect of writing the free-floating grace notes that populate much of Feldman’s earlier piano works (notes written as grace notes, but not directly preceding another note or chord). In both cases we have a musical object presumably played \textit{as though} leading to another object. The result is a hesitant, up-beat feeling that keeps both pitch and rhythm from falling into ruts of familiarity. Another consequence of the pitch notation in Scene 1 is the disconnect between what we see on the page and what we play or hear. We are used to thinking of the vertical axis of musical notation as mapping on to pitch, but the

\textsuperscript{85} Ibid., p. 71.
Bbb in Scene 1’s WIGGLE sounds lower than the A#, and this frustrates an attempt to link the spatial layout of pitches on the staff to the heard experience of those pitches.

In each bar, the piano plays two chords in a THIS-THAT pattern, and the cello plays four sixteenth notes, one of which is dotted. Since the meter is 8/32 and each measure is broken into 9:8 tuplets, the cellist must squeeze in the value of nine thirty-second notes per bar. Even without the one dotted note, this would be difficult to perform strictly as written. And the result is that the part as performed has that offness or tentativeness that “keeps it floating.” Feldman further complicates matters by asking the cellist to bow in groups of three, four, and five notes, with no apparent pattern. The notation is thus misleading, for despite the visually obvious grouping of four cello notes per piano THIS-THAT, there is nothing in the cello’s performance that projects such a grouping. And hence it is difficult to pair the cello’s WIGGLE with the piano’s THIS-THAT to create the sort of snapshots we were able to make with Scene 50 (see Figure 2.6). In the Tzadik recording, the cellist plays with a great deal of portamento, further reinforcing the impression of a WIGGLE and making it more difficult to hear each cello note as an individual object. The cello notes never remain still long enough to sound separate, even when the bow is picked up. The overall effect of the cello line is one of meandering aimlessly within a set bandwidth.

The cello calls attention to the musical surface in an intriguing way. The piano part alone produces a reliable aural plane, and if we imagine that plane as the surface of a painting, we might imagine the WIGGLE as a superimposed layer, a collage. According to Clement Greenberg, the early cubists (Picasso and Braque) called attention to the literal
flatness of the canvas by adding surface details like printed type and later by gluing actual
flat materials to that surface. They did so in order to counter the threat of the depicted
flatness inside the painting leaking into literal flatness outside. That is, when their
paintings threatened to lose all sense of depth, they jerry-rigged another layer in front of
the picture plane in order to keep their multi-faceted figures within the imaginary space of
the painting, rather than fully allowing the shapes and figures to appear first as paint on a
surface. Though Picasso and Braque turned away from their most extreme cubist
experiments, the possibility of the surface taking over was later embraced and sought after
by the American abstract expressionists, who valued the sort of anxiety or tension
between surface and depth that such a situation evokes. Feldman’s younger friend Robert
Rauschenberg, in one of his first moves away from abstract expressionism, began to use
newsprint in his work with a similar result. One of his earliest experiments was a black
painting with newsprint collage, the painting which Feldman famously bought for
seventeen dollars and change.

The frenetic wiggle of the first three scenes is easily heard as an action. But
later, in Scene 8, the wiggle unfolds so slowly that we are apt to start thinking about its
individual notes as objects (see Figure 2.21, CD track 2). The slowness, along with the
fact that the cello appears without the piano in this scene, makes it seem as if we as
listeners are much closer to the wiggle than we were in Scenes 1-3. The effect on the
listener’s attention is what I call “auditory zoom.” By “zoom” I mean something akin to
what the word means in the visual realm when used to describe something cameras do,

but with certain adjustments to deal with the world of sound. Common to both realms is zeroing in on one aspect and the consequent pushing aside of other aspects. In visual zoom, the focal object consumes more space in the visual field. In auditory zoom, the temporal extent of the focal object is magnified.

By the time Scene 8 begins, we are far enough away from the first three scenes that we may have forgotten the exact pitches that were involved in the first appearances of the WIGGLE. But the first four notes of the WIGGLE in Scene 8 (Gb-E#-Fb-Abb) nevertheless sound like the first four notes of the WIGGLE in Scene 1 (Bbb-Ab-Fx-A#) (compare Figures 2.20 and 2.21). Even though they do not use the same pitches, they do share the same (2103) contour, the same natural harmonic timbre, and, without taking into account the microchromatic adjustments brought about by the enharmonic spellings, the same pitch-class set (0123).

What makes me feel as if I have zoomed in is the way these four pitches are now dwelt upon and slowed down. The pitches become objects. Feldman makes this happen by creating edges that segment the once continuous WIGGLE. Over the course of the first eight notes (a and b in Figure 2.21), the (2103) pattern happens twice, and each time bit of silence appears after the final note. These silences create edges that allow me to segment the WIGGLE into two four-note groups. The succession of two nearly identical statements also allows me to constitute a perceptual frame around the four-note pattern, along with the attendant aural plane built by the stable repetition. We may even imagine that the scene will go on playing with this set of notes, probably varying the tempo and spacing in small ways, perhaps at some point leaving out one or another object. But Feldman
instead alters the dimensions of the frame and disturbs the annular cycle by moving the silences, creating new edges. At c, we hear the first note of the pattern heard at a and b, and we expect the entire thing to repeat. But this note is instead isolated by silence, hinting for the first time at a hearing in which each individual pitch is an object rather than a component of an action. After this silence, we get the rest of the pattern at d, but instead of a framing silence we hear an additional note, which is the same pitch as the first note in a and b. This produces what we would usually call a “rotation” at d: (1032) in place of (2103). In e, we hear the first three notes of d followed by a pause, so before the rotated organization can take hold, the frame has moved again. Up to this point, the order of pitches has remained intact. Hence it comes as a shock when the first note at f is not the expected Gb. Instead, we get a new frame that starts on E#, then E# is not followed by the expected Fb but instead by Abb. The Abb makes its expected move to Gb, but then at g we get another unexpected turn of events, as the Abb and G repeat themselves. The original order returns after f, though by now we are less convinced of its normative quality. At the same time, the frame shrinks: at h, we get the bottom two notes of the pattern in their original order, while at i and j, we get the top two notes in their original order, but each isolated by its own framing silence.

The manipulation of the frame in Scene 8 shares intriguing parallels with ideas of visual framing. The visual idea is illustrated quite elegantly in Sergei Eisenstein’s book *Film Form*, in which he compares the techniques of filmic montage to Japanese painting. Eisenstein reproduces a page from an an uncited Japanese painting textbook (see Figure 104...
The textbook image illustrates the idea that, rather than attempt a faithful reproduction of the whole, a painter should single out a part that gives the impression of the whole. The choice of frame, in terms of size, area of the scene isolated, density, balance, and composition, determines the mood of the painting. Eisenstein’s montage technique applies a similar idea to actions rather than still-life objects. That is, he depicts a large-scale activity, often involving dozens or even hundreds of people, by giving the viewer short glimpses of small parts of that group activity. The results are scenes like the breathtaking crowd montages in films like *Strike* or *Battleship Potemkin*, in which we feel engrossed in a collective action through individual glimpses of component parts of that action.

In Scene 8 Feldman seems to treat the WIGGLE in a similar, montage-like way. By using the auditory frame as something like a visual frame, Feldman is able to take the WIGGLE and present it to us in component parts. At its most extreme, this technique breaks the action down into individual objects. If we were to ignore the warps and temporal segmentations, the pattern in Scene 8 might look like Figure 2.23. Here, the shape traced by the first four notes is repeated again and again. We are all familiar with the way tile patterns on floors or walls play optical tricks as we look at them, shifting groupings as we move our gaze under our will or not. What happens in Scene 8 is very similar, though now our attention is directed by Feldman rather than by our own whim. If one imagines the tile pattern in Figure 2.22 to be the subject of the scene, then each

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87 Eisenstein, *Film Form* (1949), p. 76.
temporally set-off segment can be thought of as a single glimpse at a portion of this subject.

In calling each of these segments a “glimpse,” I want to be careful with what I am saying about our attention. In a scene like Scene 50 (Figure 2.4), I would describe our attention as relatively free. When we constitute the stable aural plane, we are doing so of our own attentional free will. As the reiterations of a pattern pile up, we can dwell wherever we want within the scene: on the decay of THIS, on the exact onset of THAT, on what is left of THIS after THAT has faded away, and so on. Consider the excerpt from String Quartet No. 2 shown in Figure 2.24 (CD track 23). Here is a scene in which a tiled pattern quite similar to that in Figure 2.23 can be imagined as the subject, but the four-note pattern is repeated with such stability that the aural plane can readily support the tile interpretation as ongoing. The timbral subtleties of bowing, instrument range, and ensemble even seem to add to the effect of a set pattern that marches on despite surface changes. The attentional freedom is similar to what we found in the THIS-THAT scenes: since we can rely on the pattern returning each time around, we can let our ears roam within the pattern, noting the timbral changes if we wish, perhaps focusing on one pitch or another, or on the bowing change between each group of four ascending notes. As scenes like this play out in time, we are likely to find a number of areas on which to focus our attention and to notice a number of details wherever we listen.

In Scene 8 of PLACF, though, our attention is entrained. Though we can imagine the ideal pattern represented by the checkerboard of Figure 2.23, we never seem to hear it from a perspective where we can take it in its entirety. The pattern is explored, but
not at will. It is as if Feldman has taken us on a guided tour of the tile pattern, showing us differently framed segments in a manner that could almost be described as a sort of musical cubism. Feldman takes the sorts of auditory “glimpses” we might have made of our own volition in a more regularly patterned scene like the string quartet scene above, and he feeds them back to us in a particular order. This method of presentation might distort the pattern on the surface, but it gives us a more detailed understanding of our apprehension of the pattern as a whole. Feldman might be understood as depicting one possible attentional “stroll” through the scene, choosing just what glimpses we are afforded and presenting them in a way which entrains our attention to the ongoing action of the cello. The ability to depict attention in this manner sets music apart from painting, as Wassily Kandinsky notes in his 1938 essay “Concrete Art”:

The composer takes the listener by the hand, makes him enter into his musical work, guides him step by step, and abandons him once the “piece” is finished. Exactitude is perfect. It is imperfect in painting. But—the painter does not possess this power to “guide.” He can if he wishes force the spectator to commence here, to follow an exact path in the pictorial work, and to “leave” it there. These are questions that are excessively complicated, still very little known, and above all very seldom resolved.88

The auditory “glimpses” of the pattern afforded by Feldman’s depicting of our attention are shown in Figure 2.25. These glimpses are fairly straightforward until we get to f. In Figure 2.25 the “glimpse” for f is in framed by a dotted line. With traditional

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88 “Concrete Art” (1938), in Chipp, *Theories of Modern Art*, p. 347.
music analysis, we might be at a loss to explain this break in an otherwise solidly 
maintained order of events. But when I hear the offness of segment f, I do not 
immediately attribute that offness to the notes being out of order in either pitch or time. I 
do not attribute the offness to the feeling that I have skipped a note, either. Instead, it is 
something akin to an odd camera angle that increases suspense by changing frames rather 
than by transforming the subject.

VI. Scenes Between Categories

Feldman loved to problematize a distinction by working within mediary space between 
two firm ideas, revealing a great and detailed middle-ground where we might have 
imagined an empty chasm before being made to consider things more closely. (His 
enharmonic pitch spellings, for example, reveal quite a bit of room within what most 
Western music takes as the atomic unit of pitch difference, the semitone.) Problematizing 
the distinction between action and object comes to the forefront in the family of scenes 
that contain the RISING TETRAD (see Figure 2.26). Figure 2.27 shows the RISING TETRAD 
as it first appears in Scenes 36 (with a cello drone), 37a (solo), and 37b (with a version of 
the cello WIGGLE) (CD tracks 24 & 25).

In Scene 36, the RISING TETRAD appears as the pitches Ab4-Eb5-G5-F6 in 
rhythms that are nearly pulse-like but unpredictable; it is accompanied by a cello drone 
that does little to distract us from the more active piano. In Scene 37a, the cello drops
out, and the piano’s pulsation becomes clearer, with four equally spaced notes followed by a rest equal in duration to two notes. The first few times we hear these four rising notes, we are likely to think of them as individual objects. This fact is helped by their being quite separated in pitch, allowing an easy vertical segregation. However, as the repetitions pile up, we constitute a pattern: every time we hear that Ab, we know we are going to hear the next three notes in something similar to the BUBBLE-UP action discussed in chapter one (see Figure 1.3). We can think of the RISING TETRAD as including three separate intervals of rise. In Scene 37b, the cello comes back in, this time with a meandering version of the WIGGLE. Over the course of these scenes, the RISING TETRAD is subject to new warps in rhythm both within and between the four-note frames. These rhythmic irregularities pair with the thus-far completely reliable annular time structure to create a stable aural plane of vibrating stasis.

After only a very brief hiatus (about 12 seconds) for a completely different two-stream scene (Scene 38), the RISING TETRAD returns (Scene 39). Now we find a slightly warped RISING TETRAD under a cello WIGGLE that has gained a few semitones in pitch and bandwidth (see Figure 2.28, CD track 26). Fifteen minutes then pass before the next group of RISING TETRAD scenes (Scenes 55-60). Scenes 55 and 56 are precisely the same as scenes 37a and 36, respectively. In scene 57 (see Figure 2.29, CD track 27), the rhythm of the RISING TETRAD undergoes further warping while the cello has a highly contrasting THIS-THAT stream, pairing a mid-range Cb with a higher B# produced by an artificial harmonic.

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89 After fifteen minutes, it is unlikely that this exact repetition will be noted as such by the listener.
Given the number of times the RISING TETRAD has presented itself, as well as the variety of contexts (solo, with a drone, with two different WIGGLES, and with a THIS-THAT), the listener has by now accepted the action character of the RISING TETRAD, readily fusing the four separate objects into one action. Thus it comes as something of a shock when we have to interpret it once again in terms of individual objects in Scenes 58, 59, and 60 (see Figure 2.30, CD tracks 28-30).

In Scene 58, the four members of the RISING TETRAD are redistributed temporally while retaining their pitch places (see Figure 2.31). The upper two pitches are now attacked simultaneously with the lower two, aligning the hands and partially destroying our previous conception of a four-note rising action (the shifting of the right hand notes is portrayed by the arrow on the right). But part of the action remains: there is still RISING going on. Two of the original three RISINGS are retained as actions: the RISING from what used to be the first to the second note, and from what used to be the third to the fourth note. We have only lost one RISING, that between what used to be the second and third notes. We are still able to hear the two separate RISINGS in part due to the vertical segregation of the scene into two streams separated by pitch (this segregation is represented by the horizontal line across the middle of the schematic drawing): in each stream we hear one RISING, and between streams we can still perceive the pitch space across which the third, missing RISING took place. But at the same time, a new hearing is available. We may choose to hear the scene as composed of two simultaneous dyads, G-Ab and Eb-F, with only one RISING from dyad to dyad. Nevertheless, it is easy to hear this scene as somehow the same as Scenes 55-57, somehow still the RISING TETRAD. To do so,
perhaps, is to attribute the change we witness in the scene not to a transformation or mutation of the materials, but to a simple shift in perspective, a sort of musical parallax.

Much more frustrating to our constitution of the RISING TETRAD is the version in Scene 59 (see Figure 2.32). Here, the Eb and G return to their original order as the second and third in a sequence of events. But Eb and G are all that remain of the original pitches. Around them, the scene has undergone a “mitosis” of sorts—each member of the tetrad seems to have spawned a copy of itself in some new register. The result is a further vertical segregation, now into three streams: the original stream occupied by Eb and G, now joined closely by F and Ab, as well as a much lower and a much higher stream. Rhythmically speaking, we now get four dyads rather than four individual notes as in Scene 57, or two dyads as in Scene 58. Two of these dyads may sound familiar: the first and fourth dyads are the same pairs that were grouped temporally in Scene 58—G-Ab and F-Eb—but now the pitch-classes are registrally reversed, repositioned at quite a remove in pitch space.

I hear this scene in a number of ways, none of which feels quite definitive. One reason the scene resists a single hearing is the tightly-packed nature of the middle dyads. These are difficult not to hear as units due to their close pitch proximity, and thus it is difficult to hear where the individual notes that make up these middle two dyads come from and where they go to. How I hear Scene 59 depends in part on how I heard Scene 58. If I kept my focus on the horizontal pairs connected by RISING, Ab-Eb and G-F, then I am inclined to carry those pairings forward to Scene 59 (Figure 2.32a), hearing the initial right hand Ab as moving to the left hand’s Eb, and the left hand’s initial G as
moving to the right hand’s F. In this hearing, the second half of the pattern reiterates these two pitch-class moves in different registers, with the right hand moving from Ab up to Eb and the left hand from G down to F. Overall, this hearing is attractive, as it can be thought of as taking the two RISINGS of Scene 58, cloning them, and reversing the direction of those clones. Such a hearing might better be called the RISING/FALLING TETRAD.

If I focused instead on the vertical dyads in Scene 58, I am likely to do the same in Scene 59 (Figure 2.32b). In this hearing we can imagine a much simpler transformation of Scene 58 in which the two vertical dyads (Ab-G and Eb-F) are registrally rearranged, then repeated in yet another registral rearrangement. In this hearing, I can trace the move from the Ab-G dyad to the Eb-F dyad either across or between streams. That is, I can hear the initial, wide-spread dyad as continuing to the closely packed second dyad, or continuing within its two streams to the loosely packed fourth dyad. The same goes for the second and third dyads: I can hear them moving from one to another within their middle stream, or hear the second as coming from the first, and the third as going to the fourth. This hearing is attractive in its keeping to the separate hands of the piano, highlighting the mirror image relationship between left and right hands.

Over the course of the many repetitions of the pattern, I am able to shift my hearing between these possibilities. The reliability of the sequence of events allows the constitution of an aural plane affording an attentionally free roam across the objects, and the competitive balance between different ways of hearing guarantees that the stasis will remain a vibrating stasis.
While listening to these scenes, I am still very much involved in apprehending the patterns and fixing them in space, hearing the delicate shifts as the time intervals stretch and shrink. Scene 58, by problematizing the distinction between action and object, pushes the idea of temporal warp to its limit. It is easy to hear Scene 59 as the consequence of pushing beyond a limit: the scene seems to have “exploded.” I find a gravitational metaphor useful here: it is as though the objects have drawn closer together in Scene 58, and when they got too close, they collided, releasing energy and splitting apart. The result is Scene 59. This metaphor suggests a process taking place across several scenes. Such processes are seldom encountered in Feldman, but here is an exception.

A process of decay starts soon after Scene 59 begins. The set of eight objects becomes a pattern, but the time between each instance of that pattern increases. The inter-pattern time changes are not predictable on an individual basis; however, taking the entire minute and a half as a whole, one can trace a gradual slowing down. The onset of each pattern in Scene 59 is marked on a timeline in Figure 2.33. This visually conveys the idea of grinding to a halt. The increase of empty space between the piano’s patterns has another effect: it gives me more attentional room to notice the cello drone. This drone had been so steady since Scene 58 that it was likely to have fallen from my immediate attention into the background, and only these longer silences call attention to it once again. In paying more attention to that drone, I feel as though the disconnection between it and the piano notes is also brought to the forefront. That is, I have been paying so much attention to the limited pitch-classes of the piano that these have
developed a sort of natural bond, a sort of forced consonance, against which the D harmonic drone sounds out of place. Or perhaps it is the piano notes that are out of place, playing out the last of their life energy against a backdrop of constancy, against a drone that perhaps signifies neither action nor object, but the undifferentiated flow of time itself.

After slowing down dramatically at the end of Scene 59, the reiterations of the pattern undergo further decay (see Scenes 60 and 61 on the second page of Figure 2.30 and the analysis in Figure 2.34). The pattern in Scene 60, on first hearing, sounds like just the first half of Scene 59. But a couple of small differences show up: the G and Ab of the first vertical dyad have swapped pitch-classes while retaining registers, and the second dyad (Eb-F) comes a bit later than before. These minor warps are not enough to keep me from thinking of the pattern as making it through the first two dyads. After the gradual drain of energy over the course of Scene 59, I hear Scene 60 as a failure of the action to sustain enough energy to make it through all four dyads.

Scene 61 finds the first dyad swapping back to the same pitches as those in Scene 59. The Eb of the second dyad, however, drops to a shockingly low register given the context of the last minute. This depth adds even more to the dramatic feeling of winding down by adding the impression of sinking to the impression of slowing down, both strong indicators of grinding to a halt. Also, the opening up of register allows a new grouping to occur. The Eb is so far away, it seems to come out of nowhere. Without another note in its immediate pitch area, I tend to hear the F of the second dyad as connected to the G of the first dyad, as these are now closer to each other than any of the other pitches. Hence,
Scene 61 faintly echoes the original action between the top two notes of the RISING TETRAD in Scenes 55-57. However, this new pattern is only heard twice and so can almost be thought of as a sort of “last gasp” of the original RISING aspect of the pattern.

Next, we get four chords made of the same pitch-classes we have been dwelling on, but in no set order and without any easily discernible progression. These four chords start to dissolve any aural plane I might have retained from the preceding scenes. Picking up the gravitational metaphor once again, the pitches now seem scattered beyond one another’s gravitational pull, floating aimlessly in space, until they finally land on the last chord.

This final chord repeats five times. Its lowest note returns to the deep register the scene first shocked us with, lingering there and moving no more, as if the notes of this final chord were the once-moving parts of an organism that has died.

In these exceptional moments when processes stretch across several scenes in late Feldman, the effect is usually not so much a development as normally conceived, nor a process made of subtle changes to an ongoing pattern. Instead, the processes strike me as a dramatization of the decay of a pattern, the pattern’s living out of its life. In such passages Feldman may have “pushed the notes around” a bit more than he was comfortable with, but in service not of unfolding a precompositional idea so much as a desire to let the patterns “die of old age.” He describes his purposeful writing out of such a process of decay, along with his misgivings about writing a stretch of such idea-driven music, with regards to a section of his second string quartet:

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I had an idea which is to take something and then finally have it disintegrate. And so finally what I did was that the beginning is presented straight, then makes other connections, say from A-Z I do C-A-B-F. It’s all constructed, so I could place anything against anything else and it would seem normal because the design of that little module is perfect. The whole thing is a nightmare, it’s like a jigsaw puzzle that every piece you put in fits, and then when you finish it, you see that it’s not the picture. That was the idea. The jigsaw puzzle, everything finishes and it’s not the picture. Then you do another version and it’s not the picture. Finally you realize you are not going to get a picture. It goes on for an hour. It’s very beautiful. The only thing I don’t like about it: it was idea-oriented. Because I knew a priori by the nature of the material that it’s going to have stages of disintegration.91

In the final chapter I will have more to say about the decay of patterns and the emotional tone this decay contributes to the late works.

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In my early adulthood I returned to some of the same places my parents drove me to as a child. Many of the stores were different, the bridge had been updated, the creek

crossing had gained a bridge. Yet enough landmarks remained—the shapes, if not the signage, of the buildings; the hills and valleys; and then the rock of my grandparents’ farm which never seemed to change. In these instances, there was a sort of dialog between change and sameness. The farm was identical to me, and though my grandparents were aging, this was not something I really noticed until I was older. The places seemed somewhat the same and somewhat different, and often it was disorienting to me when I felt I was in a familiar place that was populated with enough new houses, new buildings, and new roads that I could not even be sure it was the same place at all.

I bring up these personal memories in order to make a point I believe is important in dealing with a music often characterized as cold or emotionless. A large part of my sense of wonder and awe at the passage of time when I revisit these scenes is how they stay the same while changing. The old farmhouse itself died just as its inhabitants did, of old age. The sort of temporal experience I am getting at has nothing to do with closure or progress, but with decay and persistence. The objects last as long as their makeup allows. Wood will rot. The Massey Ferguson tractor will one day rust beyond repair, though its steel parts will likely last so long as they avoid the scrapyard. The creek will continue to flow until man or geology forces its hand. The land itself will keep producing the same slender oaks. This slow majesty of time is something seldom captured in music, because music typically lends itself to smaller-scale explorations of time and activity. People talk of a Beethoven symphony, for example, as something of a hero’s journey. Late Feldman, by contrast, seems more a living landscape which stands witness to the rise and fall of countless generations of heroes and everyday folks, living out a geological time
that dwarfs the human scale entirely, inducing in the listener something of that same awe one might feel at the foot of a great and ancient mountain.
Chapter 3: An Extended Scene: The Opening of Triadic Memories

As I noted at the end of chapter 2, a group of RISING TETRAD scenes in PLACF seems to take an idea and carry it to its end. Yet long-term processes are unusual in late Feldman, and it is especially unusual for a process to be distributed across several distinct scenes. More common is a single scene which takes a long time to unfold. There are certain scenes in late Feldman which create a vast aural plane through gradual shifts of a musical surface unfolding in annular time. Such is the opening scene of the solo piano piece Triadic Memories (1981), which lasts three and a half minutes before we get an overall picture of the scene’s larger aural plane. The constitution of the individual frames, the gradual shifts in various aspects of the pattern, the various groupings along the way, and finally the constitution of the longer-range spatial gesture are explored here in a phenomenological analysis that traces the experience of the scene chronologically.

In a short scene, we do not have much time to introspect about our experience as we listen. By the time we form an idea of a pattern, it is often either gone or set so solidly that we no longer need to access our own internal process of constituting the pattern. That is, the emergence of the pattern is not dwelt upon, but happens at some point and is over with. Quite the opposite occurs when listening to the opening of Triadic Memories. Over the course of the entire opening scene, we hear the same six pitch-classes. We have ample time to think about the experience of the pattern, especially in terms of how the notes group in various ways as the registers of the pitch-classes slowly change. The great
stillness evoked in this opening seems to give the listener more space, a greater perspective, something we do not often experience in the more frenetic Patterns in a Chromatic Field, or for that matter later on in Triadic Memories. I aim in this chapter to undertake a minute exploration of my moment-to-moment thoughts and experiences with regard to the opening. In doing so, I hope to elucidate what might otherwise go unnoticed when speaking of longer-term gestures in late Feldman. The level of detail that arises reflects something I assume I am doing most of the time as I listen, minus the conscious questioning and modeling. What I want to do is to reconstitute my experience of this scene, both in its ever-shifting minute details and its radically simple overall gesture.

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I am going to try to think with a “beginner’s mind” as I listen to John Tilbury’s 1999 recording of Morton Feldman’s Triadic Memories (CD track 32).92 I am going to describe things at their most basic level and try to build up to some more general and theoretical ideas. I have already thought a great deal about this piece, so I make no claims that I ever achieve a truly innocent or naïve viewpoint. What I am aiming for is a phenomenological inquiry. It is my plan to remain as close to the actual experience of listening as possible, and to only gradually allow myself the luxury of such “study aids” as the score and other visual representations of the sounds, such as spectrographs. However,

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92 From Morton Feldman: All Piano, LondonHALL.
for the convenience of the reader, I have included the score for the entire opening of

*Triadic Memories* (Figure 3.1). In my text I reference the score not by measure number, but
by “sextet number,” a phenomenologically motivated grouping that takes hold over the
first couple systems; these are labelled on the score. Of course, I actually pored over this
score for hours and tinkered on paper and computer with quite a few means of
representing the sounds I had already heard countless times. What follows, then, is not a
true story, but a rhetorical approach aimed at capturing how ideas about the passage
emerge over time.

First, I asked a methodological question: do I allow myself to pause the recording
as I go? The prospect of listening for over an hour and twenty minutes before I even
begin writing is one reason I wanted to say yes. This yes is also driven by my conviction
that these pieces are as much about being as they are about happening. What I do not
want to lose is the wonderful sense that the compositions have always been there and that
I am just now experiencing them. I sometimes describe this sense by saying that late
Feldman is music in the past tense—music that has already happened. Approaching a
recording, then, is more like exploring architectural ruins than re-living a story from
history. Therefore, I shall pause at will.

First sextet (0:00-0:05)

What I hear, in order, is this: first, a highish piano object ①, softly played and
somewhat sustained. Next, a pair of much lower objects (② and ③), which I happen to
recognize as being separated by a tritone (as a matter of convenience I will often call
intervals by various traditional names, with the understanding that the tonal connotations of these names tend not to apply, even in a piece suggestively described in the title as “triadic”). Objects ② and ③ are quite removed from the first object in pitch, and not so far removed from one another; and I observe that a longer time seems to elapse between ① and ② than between ② and ③. Hence, through both pitch and temporal proximity I hear objects ② and ③ as a pair (the pairing is represented by the line connecting the two pitches in Figure 3.2). Due to a stark pitch segregation between the very high first object and the very low second and third objects, I hear the scene thus far as broken into two distinct registral spaces: a high register populated by object ①, and a low register populated by ② and ③ (the segregation between these registers is represented by the dotted line in Figure 3.2).

After the pair of objects ② and ③, I hear a new object back in the register of ①, only a minor third higher. I can recognize this interval in part because ① is sustained and in part because the lower two objects are far enough away that they do not interfere with my ability to compare the top two objects directly in pitch. ④ is followed by a pair of objects that seems analogous to ② and ③, but instead of a descending tritone, they create a descending minor sixth. The sixth wraps around the still-sustained tritone of ② and ③. That is, since ⑤ is a half step above ② and ⑥ is a half-step below ③, I hear ⑤ and ⑥ as building out from the tritone by a semitone in either direction. The time between ⑤ and ⑥ is smaller than that between ② and ③; hence to hear the two pairs of objects as analogous implies a hearing in which ⑥ arrives ahead of schedule. Despite the temporal
proximity that affords the pairings ②-③ and ⑤-⑥, there is also a strong pitch proximity that affords a pairing between ②-⑤ and ③-⑥.

Thus far, I have called upon several different criteria in attempting to make sense of these six sonic objects (see Figure 3.3). I used pitch proximity (Bregman’s vertical integration/segregation) to separate ① and ④ from the lower four objects. I used temporal proximity (horizontal integration/segregation) to chunk together the pairs ②-③ and ⑤-⑥. Less explicitly, I have organized my description into two halves, one for the first three objects and one for the second three. This division is based on the repetition of a family of relationships: in each half, a object in a high register is followed by a descending pair of objects in a lower register.

Second sextet (0:05-0:10)

What I hear next are the same six objects presented in a very similar fashion, but in a different order: ①-③-②-④-⑥-⑤. In this set of six objects, then, there have been two order inversions: ② and ③ have traded places, as have ⑤ and ⑥. Additionally, ⑥ seems to arrive a bit earlier in this second set of six objects than ② did in the first set, and ⑥ quite certainly arrives earlier in the second sextet than ⑤ had in the first sextet. Here I start to realize something about the timing of the objects: ① and ④ are, so far, arriving in what seems to be a steadily metered fashion. ② and ③ follow ①, but not in a particular order or a particular rhythmic relationship to one another or to ①. The same goes for how ⑤ and ⑥ relate to ④.
Third sextet (0:10 to 0:15, page 1, system 1, measures 5-6)

I listen to the next six objects, and notice they sound almost like the second sextet. It is somewhere around this point, then, that I really start to feel the flow of the piece in terms of sets of six objects.

Fourth sextet (0:15 to 0:20)

The next six objects are just like the first six, with the same pitch and time relationships. This groups these first four sextets together in a symmetrical structure A-B-B-A. Across these first four sextets, some of the temporal relationships remain stable. ① and ④ continue to appear in a metered fashion, equally spaced across time. The pairs ②-③ and ⑤-⑥ continue to follow ① and ④, while moving about in both their order and their exact temporal placement. In Figure 3.4 I depict the first four sextets. I take the steady appearance of ① and ④ as a sort of meter, represented by the light horizontal lines.

Between these metered appearances, I have placed pitches ②, ③, ⑤, and ⑥ in horizontal positions reflecting their temporal locations. The solid horizontal line represents the vertical segregation of the scene thus far into a high stream (①-④-①-④-①-④...) and a low stream (②-③-⑤-⑥-②-③-⑤-⑥...). I also differentiate between two lower streams, again using vertical integration to arrive at a higher stream (②-⑤-②-⑤-②-⑤...) and a lower stream (③-⑥-③-⑥-③-⑥...). Segregating these two lower sub-streams produces a hearing with more regularity: within their separate streams, the pairs ②-⑤ and ③-⑥ alternate regularly.
Fifth sextet (0:20-0:25)

The fifth sextet is just like the second and third sextets, with the pairs ³-² and ⁶-⁵ ascending after the regularly metered entrances of ① and ④. Thus far, I have only heard two types of sextets, which I will categorize as ascending and descending. The timings within these two types seem to retain a sort of identity as well. The ascending sextets feature earlier entries of the bottom objects than do the descending sextets. In general, though, the lower objects are far more difficult to understand in an exact rhythmic way. Instead, they seem to hang loosely from the starkly regular ① and ④, giving the impression of being almost dragged along by their higher counterparts.

Sixth sextet (0:25-0:30)

The sixth sextet starts out sounding just like the first and fourth sextets, with which it shares its descending order of ²-³ and ⁵-⁶. I notice, however, that ⁶ seems to arrive quite a bit earlier than I expected it, coming right on the heels of ⁴, a timing I have heretofore associated only with the descending version of the sextet. The ensuing confusion about timing has the effect of detaching my attention from the exact temporal placement of the lower four objects. Up to this point I consciously tried to track their subtle changes in position, going so far as to formulate a hypothesis that the descending pair arrived more quickly than the ascending pair. However, with this hypothesis now disconfirmed in the sixth sextet, I have little to turn to for predicting the timing of the entries of ²-³ and ⁵-⁶. At sometime around this point, then, I begin to hear each set of six objects in terms of the annular time circles described in chapter one, in which the
order is retained but exact timings are subject to warpings of an unpredictable nature. In this case, there are two versions of the annular time circle: an ascending and a descending one, differing only in the order of 2-3 and 5-6.

Seventh sextet (0:30-0:35)

Here the confusion about timing continues, as the ascending version of the sextet has the timings I had previously associated with the descending version. That is, the first of the lower objects in each set of three pitches comes in after a slight delay, rather than directly after the high object. The shift away from tracking specific warpings in temporal placement and towards a hearing based on a conception of annular time is reinforced. At the same time, I think back to the first four sextets, and their symmetrical order descending-ascending-ascending-descending. Since the third sextet, I have heard instead a steady alternation of ascending and descending. I had expected the symmetrical arrangement of the first four sextets to repeat, and that expectation is now frustrated. A new hypothesis of a steady alternation between ascending and descending versions of the sextet tentatively arises.

Eighth sextet (0:35-0:40)

My hypothesis that ascending and descending sextets will continue to alternate is supported. However, my hypothesis-testing recedes into the background as something new catches my attention. Objects 2 and 3, and then objects 5 and 6, have appeared in a higher register. In the previous sextets, they had been so low that their fundamentals
were a bit fuzzy because of the noise created by the lowest strings on a piano. Now I can hear the pitches more clearly. What is it, though, that makes me recognize these lowest four objects as the familiar 2, 3, 5, and 6 despite the change in pitch? The perceived identity of the lower four objects across the registral shift implies that I am hearing in terms of pitch-class equivalence. I do not hear the lower four objects as completely new. Rather, I hear them as if from a new position, closer and clearer.

Ninth sextet (0:40-0:45)

The ninth sextet is an ascending version of the eighth sextet. My hypothesis about an alternation of ascending and descending versions of the sextet is growing quite strong now, having survived since the third sextet (longer than my initial hypothesis of a symmetrical grouping ascending-descending-descending-ascending). Additionally, I have all but given up trying to track the exact timings of the lower four objects, focusing on the stable alternation between ascending and descending.

Tenth sextet (0:45-0:50)

As I continue listening, the top two objects (1 and 4) suddenly drop an octave, with the ensuing increase in timbral clarity as they move down from the noisier high register of the piano. This timbral clarity lets me hear the fundamentals of each pitch more directly, and now that the top two pitches and the bottom four pitches are a total of two octaves closer to one another, I am more able to relate them in pitch-class space.
had already begun thinking in terms of pitch-class during the ninth sextet, and now such thinking has been reinforced with the right hand’s shift down in register.

Eleventh, twelfth, and thirteenth sextets (0:50-1:05)

Over the course of listening to these next three sextets, I am able to explore a hearing in terms of pitch-class relations between streams. I could already hear that, within streams, 1 and 4 were a minor third apart, and that the bottom stream opened up from a tritone to a minor sixth. By reducing my attention to register, I can hear that the pitch-class of 2 (the top member of the tritone) is a half-step higher than the pitch-class of 1, and that the distance between 1 and 2 is a registrally removed ascending semitone. Similarly, I can hear 4 as related by a registrally removed descending semitone to 5.

Such a hearing allows me to form a picture of the six objects in pitch-class space, and to project this pitch-class space across registers to form a textured idea of the entire pitch space of the opening thus far (see Figure 3.5). Having noted the semitone relationships 1-2, 2-5, 4-5, and 3-6, I am able to form a composite picture in which the pitch space of the scene is divided into densely packed chromatic bands separated by gaps. The smallest pitch difference I hear in the scene is a semitone, and if I project the semitone onto the gaps, I can measure the empty intervals just as I measure those between objects. Since it is a part of my experience by this point in the opening that I can shift my attention away from both register and temporal placement (remember, each pitch is sustained and so is always present to some degree), I can hear something very much like what I picture in Figure 3.5.
It does not mean much at this point to realize that this is an \(012367\) hexachord formed by two chromatically saturated frequency bands, one of four pitch-classes and one of two pitch-classes, separated by two semitones on one side and four semitones on the other side. In talking about pitch-class I do not mean to bring up the usual ways theorists use the concept to describe atonal music. What would be the point? There are no other pitch-classes or pitch-class sets to relate these to; there is no composing-out of inversional combinatoriality; and there is little reason to hear this as a historical reference to one of the pet hexachords of the second Viennese school. My attending to pitch-class here is much more limited than it would be with Schoenberg or Webern. During the opening of *Triadic Memories*, pitch-class acts mostly as a backdrop against which to hear the identities of the six objects across their registral differences.

Fourteenth, fifteenth, sixteenth, and seventeenth sextets (1:05-1:25)

As I continue listening, the bottom four objects again appear in a higher octave, without disturbing the rest of the pattern. Having now observed that the bottom four objects appeared in two increasingly higher registers and that the top two objects appeared in a lower register, I am struck by the vastness of the space between the two streams. Despite their now being three octaves closer to one another, they remain far enough apart that it still requires some effort to hear the inter-stream pitch-class relationships outlined above.
Eighteenth, nineteenth, twentieth, and twenty-first sextets (1:25-1:45)

At the onset of the eighteenth sextet, the top two objects appear in a yet lower register. Now, for the first time, the bottom of the upper stream (1) is within an octave of the top of the lower stream (2). By this point, I have internalized the process going on over the course of the scene: the bottom four objects are gradually rising, and the top four objects are gradually falling. I expect this process to continue to the point where the once-segregated streams occupy the same register, but what then? An element of drama enters as I become a spectator at the site of an impending collision.

Twenty-second, twenty-third, twenty-fourth, and twenty-fifth sextets (1:45-2:00)

Here the registers finally meet. Since I have been hearing the same pitch-classes for close to two minutes, the tangling of registers does not at all threaten my ability to identify each of the six objects. However, I find myself torn as far as grouping strategies go, particularly with respect to 2 and 5. Through sheer preponderance of context, I have reason to hear them as remaining connected with 3 and 6, but such a hearing becomes difficult as 2 and 5 are captured by what used to be the high stream, quite literally surrounded on both sides by 1 and 4. I hear a new vertical segregation into a higher stream (1, 2, 6, and 4) and a lower stream (6 and 3). Such a hearing seems attractive and inescapable over the course of the twenty-second through the twenty-fifth sextets. It is as though hearing the previous registral arrangements with an increased attention to pitch-class has trained me for this new grouping by pitch. When I first engaged such a hearing, back around the eleventh sextet, it was something of a stretch of
the imagination to hear 1 as next to the registrally distant 2, or 4 next to 5. Now that a pitch-class-oriented hearing overlaps completely with a hearing in pitch space, those same relationships between 1 and 2 and between 4 and 5 are explicit and hard to imagine otherwise.

Twenty-sixth and twenty-seventh sextets (2:05-2:15)

I continue listening, and 1 and 4 drop down another octave in register. Having just become accustomed to connecting 1 to 2 and 4 to 5 so explicitly, I still attend to this connection across the registral displacement. But at the same time, I start to separate the scene back into its two streams, again with 1 and 4 in one stream and 2, 3, 5 and 6 in the other. Here for the first time I think about the makeup of these streams. Earlier in the opening, it was easy to describe how they formed streams based on vertical segregation. The once-high stream is now low and vice versa, and yet I find it easy to continue tracing them as the same two streams after the registral reversal. This suggests to me that my streaming may have started out as based on a disjunction between specifically higher and lower pitch spaces, but by the time the two streams meet in the middle register, the identity of the two streams has more to do with the ongoing appearances of the same pitch-class objects. Hence, even after the temporary new groupings during the twenty-second through the twenty-fifth sextets, the two original streams survive intact in the twenty-sixth and twenty-seventh sextets.
Twenty-eighth and twenty-ninth sextets (2:15-2:25)

The stream containing \(2,3,5,\) and \(6\) again appears in a new, higher octave, leading me to start predicting how the rest of the scene might play out. Having witnessed the former high and low streams gradually come together in register, I now realize they are each continuing on what now appear to be trajectories in pitch space. I imagine that \(1\) and \(4\) will continue to descend, and that \(2,3,5,\) and \(6\) will continue to rise, perhaps until they occupy one another’s original registers from the beginning of the piece.

I think also of the piano itself. I think of how the two streams started at the extreme high and low registers of the instrument, gradually made their way to the middle, and now seem to be gradually continuing on their journeys. I realize for the first time that when I think of the two streams meeting in the middle, I am thinking of the two hands meeting in the middle of the piano. It occurs to me that the right and left hands must by now have switched streams.

Thirtieth through thirty-sixth sextet (2:25...)

As I continue listening, my prediction is confirmed: \(1\) and \(4\) drop another octave at the thirtieth sextet. \(2,3,5,\) and \(6\) ascend another octave at the thirty-second sextet. \(1\) and \(4\) drop once again at the thirty-fifth sextet, and finally \(2,3,5,\) and \(6\) ascend in the thirty-sixth sextet. Each stream now occupies the register the other stream had occupied at the beginning of the piece. I note that the registral movements seem to have quickened since the two streams met in the middle register, and I marvel at how little the mood or the feeling of the scene has been affected by the switching of the high and low
objects. But then, the pattern is disrupted and new objects begin to appear. The opening scene is over.

*                       *                       *

I now stop listening, and start thinking of how best to represent my experience of the entire opening scene. My drawings of *PIACF* scenes, I realize, worked well in part due to the shorter length of those scenes. Here my desire to visually depict my experience meets an obstacle in the greater length of the scene. This specific question leads to the more general question of how music (or any sound) can best be graphically represented. One obvious way is the score itself. But really, the score is less a representation and more a set of instructions to the performers about how to make the sounds. For instance, looking at an orchestral score, maybe the first violins, clarinets, and horns play a chord that seems to have some object-hood of its own. This is not immediately obvious to the eye when scanning the score, since these three instrument groups are separated on the page’s vertical axis. In late Feldman, the problem is heightened by a number of notational idiosyncrasies. Enharmonic spellings, for example, can produce a conflict between vertical position on the staff and heard position, as when Bbb is notated higher than but sounds lower than A. And the even flow of time suggested by the barline is misleading when the meter changes so often, particularly when these meters themselves are stretched or foreshortened by tuplets.
What I wanted was a more direct mapping of the actual sound, an image of “the sounds of the sounds themselves.” So I experimented with spectrographs, a technique that bioacousticians use for representing sounds such as bird calls or whale song. A spectrograph is a visual representation of sound that maps time on the horizontal axis and pitch on the vertical. But instead of using conventional symbols, as in musical notation, a spectrograph charts sounds in terms of frequency over time. It also depicts the amplitude of every frequency at each sample of time by mapping amplitude to a color scale.

A spectrograph has some disadvantages and advantages compared to scores and auditory representations. A spectrograph gives no clue as to how a sound was made. A spectrograph does not differentiate musical sounds and whatever other sounds the microphone might happen to pick up. And because a spectrograph is based on a Fourier analysis of sounds, it does not integrate the components that make up a musical sound. Instead, it separates a complex sound into a stack of simpler sine waves which it then plots on a pitch-time graph; hence, it treats fundamentals and overtones as different sounds. When I make a spectrographic image of a passage played by an instrument with the least bit of complexity in its wave-form, I am thus confronted with something quite different from what I think I hear. What I perceive as single pitches are represented spectrographically by vast towers of harmonic partials that have very real and very salient, physically measurable existence. One problem with using a spectrograph to describe human experience is that it does more Fourier analysis than a human does, at least consciously; or, better, the human auditory system integrates the results of Fourier
analysis. My computer simply takes in different overtones of various intensities, but what
I hear are individual sounds imbued with what I think of as a “timbre.”

Figure 3.6 is a spectrograph of the opening of Triadic Memories. Intensity is
conveyed on the spectrograph by color, on a scale from black through blue and green to
yellow-white for the loudest moments. To make this image, I adjusted the contrast,
brightness, and sample length (the minimum amount of time per frequency sample) to
heighten the visual impact of the fundamentals. Some adjustments are necessary when
the sound source is a piano, because the instrument’s noisy percussive attack and
extremely strong octave-related overtones tend to cloud a spectrographic representation to
the point that it is difficult to see the fundamentals of each note.

The spectrograph in Figure 3.6 seems loaded towards the bottom. One reason for
this is that it measures pitch in Hertz, a linear scale. Our musical understanding of pitch
in octave-related registers, on the other hand, is based on a logarithmic scale. So, for
instance, in the spectrograph the distance between twenty and ten Hertz is much shorter
than the distance between two hundred and one hundred Hertz, but in our musical
experience, we hear these two distances as equal. The top two notes at the beginning of
the piece, for example, are a minor third apart, but on the spectrograph they appear to
take up a disproportionate share of the graph’s vertical span.

Another problem with the spectrograph is the difficulty a computer has in picking
out details in the lower registers of human music-making. Note the “muddiness” at the
bottom of the spectrograph; the muddiness does not disappear if you zoom in, for
attempting to sharpen the image tends to make everything higher disappear.
Despite these shortcomings, a spectrograph has some important advantages. One thing I find especially suggestive is what we can learn about pitch-class from the spectrograph. If we attend only to the fundamentals notated in the score, it seems as if it takes the entire scene for us to hear the streams saturate every register. The spectrograph suggests that this coloring-in happens faster than that. Since the octave-related overtones of the lower stream are so salient over the first half of the opening, we have actually already heard the upper register colored by these four pitches long before the fundamentals of this stream rise to this pitch level at the end of the scene. This suggests a more nuanced view of the process of the registral cross described in the phenomenological analysis above. I can now think of the lower stream as coloring the entire spectrum at the beginning, then gradually inhabiting less and less of that spectrum as it rises to the top. The higher stream, on the other hand, starts just at the top, and as it moves down it colors more and more registers until it gets to the bottom, at which point the spectrum is saturated with its overtones.

Another thing that stands out right away in the spectrograph is the pleasing “rug” look of the image. Since each attack has a fair amount of noise, it creates a vertical line throughout the pitch spectrum. These lines compare well with the framework of hand-woven rugs, since they are semi-regular but a bit stretched out here and there. The various shadings from the fundamentals and overtones give the entire surface a textural gradient, from the lower stream’s dominance on the left to the upper stream’s dominance on the right, reminding me of the gradual color shifts Feldman was so fond of in hand-dyed nomadic rugs.
Although I can focus on overtones and hear the sort of picture presented in Figure 3.6, it is only with a certain effort that I can detach my attention from the fundamental pitches. If I take the opposite route, ignoring overtones and only tracing the pitches as written, I am led to a more schematic image like that in Figure 3.7, in which I represent the piano’s pitches as shaded blocks, using a lighter shading to represent their sustained presence (via the half pedal) between and after attacks. The map in Figure 3.7 is what I call a “scroll view” of the scene, drawing in what took three minutes to unfold into a single picture easily apprehended in a glance. Such a view of the scene helps to bring certain facets of the scene to our attention. The most obvious is the gradual process of the two streams crossing registers, which is much clearer here than in the spectrograph of Figure 3.6. The timing of this registral cross, which I noted in the above phenomenological analysis as accelerating towards the end, is also clearly evident in Figure 3.7. On the other hand, there are aspects of the scroll view that do not match the image that I retain at the end of the scene. The map’s exact reproduction of rhythmic placements and repetitions of each sextet is much more accurate than my own memory-driven version.

The gradual registral crossing over the first three minutes is just the type of thing that is easy to understand with a scroll, but less obvious when listening. As such, it reminds me of the story of the first scientists to make headway in the study of whale song.\(^{93}\) For a long time nobody thought whales’ utterances had order to them, but once people made spectrographs and scrolls like those in Figures 3.6 and 3.7, they realized that

\(^{93}\) As described in Robert Erickson’s 1975 book *Sound Structure in Music*, p. 85.
the utterances of the whales did in fact have order, but it was an order that unfolded over an extremely long time as compared to the utterances of birds or humans. There may be no regularity from second to second, or even from minute to minute, but over a longer period the whale does indeed seem to sing clearly differentiable “sentences” and sequences of sounds. In hearing the opening of Triadic Memories, I am often more concerned with the moment-to-moment regularities and irregularities of the surface, though I do notice the gradual registral shift over time in what you might call an additive way. Especially after repeated hearings, my focus tends to be on the individual sextets and their object relationships. The overall registral crossing is something I keep in my attentional background, for the most part.

What both the spectrograph and scroll view distort is my experience of the stasis of the scene. Within each stable period between registral shifts, and to a great extent across these shifts, I hear a single frame populated by six objects. I want my representation to account for the feeling that repetitions are not reappearances or new versions of an object, but are reaffirmations of that object’s static being within the aural plane. The scroll view might be compared to the point of view of an omniscient narrator. It is more a depiction of a reflection on the experience of listening than it is a direct depiction of that experience itself. The spectrograph, on the other hand, is more a picture of the raw sensory data, which I can never quite hear without the sort of early-level scene analysis that is an automatic part of my perceptual apparatus. The very length of either view, allowing a quick glance of the entire scene, is the problem. Or, to be more precise, the length is a by-product of the problem. The problem is a friction between competing
ideas of “here-ness.” A note’s being “here” is a note’s being present in one or more sonic dimensions. The scroll view and the spectrographic view place undue emphasis on just one dimension, the dimension of time’s moving forward across the entire scene. But there is another idea of “here” based on location in an aural frame formed by annular time. In this second manner of locating events, the notes remain relatively static, and the dimension of time’s moving forward recedes in importance.

Figure 3.8 is an attempt to show in one picture both the aural frame and the greater passage of linear time throughout the scene. Rather than attempting to resolve the friction between the two hearings, I simply present them both. There are two versions of the aural plane in the opening of *Triadic Memories*, those I described in the phenomenological analysis above as descending (in which \(\#\) precedes \(\&\) and \(\%\) precedes \(\&)\) and ascending (in which \(\%\) precedes \(\#\) and \(\&)\) precedes \(\%)\). In Figure 3.8, I show the aural frame and its shifting groupings at three points across the opening scene, which is mapped out as a whole below for convenience. On the left are the ascending and descending versions of the aural plane as first encountered, which endure until quite close to the registral meeting in the middle (from the first through the twenty-first sextets). Here, the dashed horizontal line depicts the stark segregation into two pitch streams. Dotted lines show pitch integrations, and solid lines show temporal integrations. Over the course of the first half of the opening, the groupings remain consistent: the top two objects inhabit one pitch stream, while the bottom four inhabit another. This lower stream is sub-grouped by pitch into a higher pair (\(\#\) and \(\&\)) and a lower pair (\(\%\) and \(\&)\). The pitch connections in the lower stream are held in balance by a competing set of
temporal connections, 2-3 and 5-6. That is, I never hear these bottom four notes as breaking into explicit pairs, but rather they seem to be held in a gravitational standstill by the competing forces of vertical and horizontal integration. The temporal connection from 1 and 4 to the bottom stream is much more diluted. For one thing, the pitch chasm is so great it is hard to hear any sort of connection across it. For another, the constant switching of order in pairs 2-3 and 5-6 prevents me from making as definite a temporal connection as I do between those within the lower stream, which remain constant in descending and ascending versions of the sextet.

In the middle of the figure are the descending and ascending frames during the registral meeting (twenty-second through twenty-fifth sextets). Here, the two versions of the frame differ in grouping. In the descending version (top middle), there is an extremely strong connection of both temporal and pitch integration between 1 and 2 and between 4 and 5, represented by the double lines between them. The temporal connections between 2 and 3 and between 5 and 6 from the previous frame continue to endure, as does the pitch connection from 3 to 6. However, the extremely strong connections 1-2 and 4-5 seem to obliterate the previous connection from 1 to 4. The result is a segregation of the plane into three distinct pairs, 1-2, 4-5, and 3-5, each outlined by its own sub-frame. This is the only frame across the entire opening in which these half-step related pairings are made explicit, as if it were these pairs Feldman was thinking in terms of during the piece’s composition:

Without getting overly technical, the music is made of essentially just two different kinds of intervals: a minor second, a major second, which of
course is also a minor seventh and a major seventh. And it is by superimposing other like intervals that the chord formations are made. I was always very interested in writing music, where you thought one way and yet it sounded another. And this piece is really no exception.\footnote{Feldman, “Triadic Memories” (1982), from \textit{Give My Regards to Eighth Street}, p. 155.}

It is suggestive that it is just here, at the center of the piano, the presumed location of the composer himself (Feldman always composed at the piano), where these groupings make themselves heard. Even during the registral crossing, though, these pairings only endure explicitly in the descending version. The ascending version comes closer to splitting the frame into two triads, the first three and the second three notes. By eliminating the temporal aspect of the bonds between $1$ and $2$ and between $4$ and $5$, these groupings are weakened by competition with the new temporal bonds $1$-$3$ and $4$-$6$. Here, then, is the only point during the opening where the grouping of notes lines up with the barline, again suggestively placed right in the middle of the overall process. The effect is almost as though Feldman had started in the middle, and somehow worked out in two directions of time at once, refracting these middle groupings through the pitch spectrum and allowing a jumbling between his conception of the pitch pairs and temporal triads and their apprehension by the listener at the beginning or ending of the opening scene.

In the twenty-sixth and twenty-seventh sextets (the frames on the right of Figure 3.8), we get some new groupings. Here, $1$ and $4$ are still close enough to the other four pitches to engage actively in a temporal connectivity not weakened by a large pitch chasm.
between streams. Therefore, they are able to latch onto the four-note stream, grabbing
hold of ② and ⑤ in the descending version and ③ and ⑥ in the ascending version. The
results are two new melodic shapes we never had reason to hear before: two hook shapes
in the descending version (①-②-③ and ④-⑤-⑥) and two upward-reaching lines in the
ascending version (①-③-② and ④-⑥-⑤). These new shapes are short-lived, however, for
as the two streams separate, the frame starts to look like it did during the first few sextets,
but with the two pitch streams having switched places.

What I hope to have shown in Figure 3.8 is a compromise among the various ways
used to represent my experience of this extended scene. On the one hand, I think in
terms of a stable aural plane whose vibrating stasis is ensured by the ever-shifting
groupings holding its objects in balance, as represented in the frames at the top of the
figure. On the other hand, I keep track of the important overall process of the registral
crossing of the two streams, as represented in the map at the bottom of the figure. The
problems of attentional focus within an extended scene also arise when attempting to
account for my experience of an entire piece. Even in the shortest of Feldman’s long, late
works, the amount of detail in an entire piece creates a challenge for the listener and the
analyst. In the final chapter of the dissertation I offer no definitive solutions, but rather
three strategies one might use when applying the ideas of chapters two and three to entire
pieces.
Chapter 4: A Piece, A Whole: Patterns in a Chromatic Field

Maybe it’s because I’m Jewish; actually, the Christian point of view is that there was God and then there was the world and the Jewish point of view is almost as if there was the universe in order to have a God. It’s a little different. In other words I’m not creating music, it’s already there, and I have this conversation with my material, you see.

— Feldman, “The Future of Local Music”

One cannot help but wonder if it is possible in the first place to talk about the “overall form” of a late Feldman piece. How does one take such a wealth of raw information and find the fitting examples, or the recurring ideas, with which best to give an impression of its sound? I find there is no one correct answer, but rather a family of what I call strategies. These are strategies of the listener and analyst, ways of “hearing across” greater swaths of time and pulling out conclusions that at least give some flavor of the work and hopefully shed light on the aesthetics of the piece as a whole. In what follows I shall explore three such strategies.

In the first strategy, “follow a color,” I keep track of scene types and object identities across scenes, noting their placement on the overall time-canvas. The idea was to bring the larger aural plane of the entire piece into focus, to keep the details of the piece on the surface, and to imagine this surface as a whole, swimming with various colors and patterns, but always cohering as a sonic surface. In the second strategy, “listen for the small differences,” the first step is to note many small details within scenes. The second step is to start thinking in terms of proliferation of detail and variation rather than in

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95 In Give My Regards to Eighth Street, p. 157.
terms of proliferation of sameness and recurrence. The idea here is not to dwell on surface similarities, but to thicken the aural plane, as it were, with the plethora of individual detail going on in any given scene. In the third and final strategy, “listen for mood and emotion,” I examine how Feldman’s long, late works can be heard as a reflection on loneliness, loss, and death, considering biographical details of the composer as well as structural aspects of the music.

**Strategy 1: Follow a Color**

In her lectures on late Feldman, Bunita Marcus spoke at length about his interest in both abstract art and rugs. Feldman was always fascinated by the details of color on the surface, but as his eyes grew worse with age, he was not able to see paintings like he used to. When he first started looking at nomadic rugs, with their large square knots, thick pile, and textured surfaces, he felt he had found something akin to the abstract art he loved so dearly but could no longer see with the fine detail he wished to. The highly textured surfaces of the large rugs seemed to do a lot of the same visual things that his paintings did, but in a manner much easier for his eyes to make out. To illustrate the similarities, Marcus compared a certain Turkish rug with one of Jasper Johns’ “numbers” paintings. In both cases there is a loose grid-like structure, with similar figural elements in each cell.


97 Marcus’s brief article in the book from the Irish Museum of Modern Art’s exhibition on Feldman and his art collection, *Vertical Thoughts: Morton Feldman and the Visual Arts*, provides some excellent images comparing paintings and rugs.
Each portion of the grid has a bewildering variety of colors, creating a blur between the surface and the background. The distribution of colors seems to disregard both figure and cell, creating a movement across the canvas or rug seemingly of its own design beyond the subjects on the surface. Creating movements of color that are independent of figures played a large role in much abstract art before and even after the rise of the more “hard-edge” abstract styles of the sixties. Such details in coloration, however, are a dying art when it comes to rugs, which are more and more industrially manufactured. The variations of color in hand-made rugs come from the method of dyeing the thread. Typically, threads are dyed in small batches. Often these batches will have slightly different mixtures of the dye ingredients, and even when the same dye recipe is used, different batches of thread will be saturated with color to different degrees. This abrash, or color variation, along with the “imperfections” either purposely or accidentally woven into the design, form the treasured and sought-after uniqueness of nomadic rugs.98

In talking about the “Jasper Johns Rug,” Marcus shared a viewing strategy for both rugs and paintings alike. She displayed a large slide of a Jasper Johns number painting and asked the audience to trace a certain color over the surface. Trace all the soft blues, for instance, and see what sort of shape they make, or how they seem to move, to cut across the figural foreground and hence reinforce the surface. Certain colors seem to be applied all over a canvas, balancing out, but other colors only appear in a few choice places, creating another sort of balance, or even an imbalance which adds to the overall vibrating stasis of the whole. I have often used this strategy at museums, looking at

98 Marcus, Structure and Notation in the Music of Morton Feldman.
canvases of abstract art, feeling the movement of individual colors, and it does seem to make the paintings both come alive and cohere. A related strategy in works like the larger Pollocks is to follow not only a color but a gestural shape that appears all over the canvas, such as a thin black loop. In this case one can see the appeal of a concept like “action painting,” because one feels as a viewer that in tracing this shape we retrace the very action that produced the shape. Listening to Feldman and reading about his beloved artworks has opened my eyes to the fact that one can look the same way at a Cézanne or a Matisse, in whose paintings the represented world seems to be a prop for the beautiful interplay of colors and gestures on the picture plane. Even in later “post-painterly” abstract works, the play of color on the surface can help keep the overall picture from retreating into depth. Here I think of Frank Stella’s “Protractor” series, in which the placement of objects in front of or behind other objects in confusing ways seems to both problematize and energize the picture plane.99

In Feldman, I take pattern and individual object-types as functionally parallel to color and figure. So one way to listen to the overall form of *Patterns in a Chromatic Field* is to pick an individual pattern or object and to trace it through the composition. Just as tracing a color across the surface of a painting helps to reinforce the picture plane, tracing patterns or objects across a late Feldman piece can help the listener with imagining a “time-canvas” in which various patterns and objects are distributed. The non-developmental and often seemingly arbitrary distribution of patterns and objects allows a

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99 Frank Stella discusses these works in an interview in the 1972 video *Painters Painting*. Kendall Walton, in *Mimesis as Make-Believe* (1990), describes a basic level of representation that exists even in most “abstract” art where certain lines or shapes are seen as in front of or behind others, advising us that to talk about “non-representation” is rarely entirely accurate.
hearing in which temporal sequence becomes spatialized; in which scenes are understood as next to one another rather than before or after one another, much less coming from or going to one another. The time-canvas can be conceived as a macro-level aural plane that results from shifting attention away from individual scenes. The effect is akin to what happens when one defocuses one’s eye from the ornate individual figures that inhabit a large Pollock drip canvas, and instead allow the whole to manifest as a single surface.

Over the course of any late Feldman piece, we as listeners are bound to adopt a few pet objects of our own, certain chords which strike us as memorable for whatever reason; and we are generally rewarded by hearing these objects return several times throughout the piece. These pet objects rarely play out their appearance and disappearance in a dramatic fashion. Their first appearance is never foretold, never inevitable. Subsequent reappearances never seem to be the result of logic or development. And when they appear for the last time, they do not provide a sense of conclusion. They populate a certain area and help to create its mood. As a canvas may use a certain color only in one area, leading our eyes on a futile search for it elsewhere, so we might listen for these pet objects during portions of the piece in which we do not hear them. In tracing a color across a canvas, we often search exhaustively. That is, we find all instances of the color, perhaps then unfocusing our eyes and feeling that color in its dynamic relationship to the colors around it and to the canvas as a whole. And in whatever else we see, we sense the absence of that color as well.

In what follows, I will trace two patterns across the time-canvas: the WIGGLE and the COORDINATED THIS, as well as a single object I call SHARP9, after which I will reflect
on the usefulness of the strategy in coming to an understanding of the piece as a whole. Figure 4.1 presents a rough picture of how SHARP9, WIGGLE, and COORDINATED THIS are distributed within PLACF.

Each appearance of the sonically unique and recognizable SHARP9 is marked on the timeline by rounded areas in dashed lines, and these are connected to the relevant score examples above the timeline. I call the piano chord-object SHARP9 because it strikes my ear as sounding like a chord that jazz musicians call a #9 chord (usually a root position dominant seventh chord with an added minor tenth above the bass, sometimes called a “major-minor” chord or, after its very popular use by Jimi Hendrix, the “Purple Haze” chord).

SHARP9 first arises about nine minutes into the piece. By this time, I have heard quite a few scene types and a number of sonic objects. This is the first time I pick up on anything I can come close to classifying as a familiar tonal chord. Naturally, the chord in no way acts like a #9 chord acts in jazz or rock music. Feldman characterized his use of pitch as taking the same sorts of verticalities used by the Darmstadt composers, but instead of making them links in a chain of ideas, he explores them in their own right. That is, his individual vertical chords might look like those found in Webern or modern jazz, but instead of being the result of a serial process or part of a tonal progression, they are dwelt upon without relation to what comes before or after.

The actual makeup of Feldman’s chord is a bit more complicated than the usual #9, but its specific makeup is not as important for the present analysis as is the fact that it is recognizably different from other objects in PLACF. SHARP9 occurs first with a
harmonic cello note in a THIS|THAT scene (Scene 22). When I encounter the first
SHARP9 scene, it is not distinctive due to its similarity in length, tempo, and instrumental
makeup with the scenes immediately surrounding it. There are a great number of short
(20 seconds or less) scenes around this area of the time-canvas, and most of them include
both the piano and cello. Hence the SHARP9 “color” in Scene 22 is mixed in with a
dizzying variety of other colors in its local context.

SHARP9 reappears a minute or two later in Scenes 28-29, first with two cello
plucks, then with a mixture of two new cello plucks and two cello harmonics. Here, it
does stand out from its immediate surroundings quite starkly. These two SHARP9 scenes
are preceded by a cello solo in Scene 27 (which is nearly identical to Scene 8, shown in
Figure 2.21), and followed by another cello solo in Scene 30. The very presence of the
piano in Scenes 28-29 causes SHARP9 to stand out from its surroundings. Just as the
prominence of a color is related to both its contrast to its surroundings and also to the
amount of surface area it occupies, the distinctiveness and persistence of SHARP9 through
two consecutive scenes attracts my attention. Hearing these two scenes’ worth of SHARP9
separated from other piano objects could well have been what first directed my ear to
search for SHARP9 across the rest of the time-canvas.

Its next appearance (Scene 47) is quite similar to Scenes 28-29, but the removal of
the inner repeat signs results in a single scene in which the chord is accompanied not by
pairs of cello objects but by a collection of six cello objects. Here I have a sense of
finding the SHARP9 color in a less expected place. Whereas the past two appearances of
SHARP9 were found among scenes of similar length and tempo, this one is located amidst
a number of longer and slower scenes, including the glacial Scenes 44, 45, 50, and 52.
The effect here is of finding a familiar object in an unfamiliar setting. Whereas SHARP9 used to be another ingredient mixed in or standing out among shorter patches of color, it now appears dwarfed by the scale of the surrounding colors. However, the contrast seems to give the object its most attentionally salient presentation yet, as it stands out boldly from the longer and thinner-textured scenes that surround it.

In its final appearance in Scene 68, SHARP9 occurs with a new pair of cello plucks as just one of a variety of colors and is once again located among scenes of similar length and instrumental makeup. Once again, it becomes a color that does not attract my attention unless I listen for it specifically.

Shown below the timeline are examples of the COORDINATED THIS scenes. These are the only scenes in the entire piece in which the cello and piano play a single object homorhythmically, hence they are quite distinctive. The first such scene (Scene 88) does not occur until about fifty minutes into the piece. Here, the fact that the cello and piano come together to repeat a composite object comes across as a central event in an area where the two instruments already exhibit a great degree of cooperation. In Scenes 85, 87, and 89 the piano and cello play homorhythmically, but they each play a variety of objects within each scene. In Scene 88, the objects remain fixed: one piano dyad and one cello harmonic. I imagine Scene 88’s COORDINATED THIS as a patch of complex color surrounded by simpler elements that make up that color. One might picture a patch of green that seems the result of a collision of blues and yellows, for instance.
The next two appearances of COORDINATED THIS scenes occur a few minutes before the hour mark. In Scene 110 (not shown), the durations and inter-attack times of each THIS gradually shorten, whereas in Scene 115 (shown in Figure 4.1) they lengthen. Here, COORDINATED THIS stands out from a context in which the cello and piano have not had a predictable relationship since Scene 102, and will not again until Scene 122. The COORDINATED THIS Scenes 110 and 115 act as bookends around a frenetic area of fast, short scenes (112, 113, 114). I imagine an area of a canvas filled by vague figures and colors that make it hard to focus, amongst which there arises one patch of more carved shapes, itself surrounding a small, extremely active area of the canvas.

In the final few minutes of the piece we have three more encounters with COORDINATED THIS. In Scenes 160 and 162, the piano chord is actually a FLAM composed of two dyads, and the cello plucks a double stop (an octave higher in Scene 162). In Scene 163, the piano’s chord is quite low and muddy, a noisy timbre matched by the cello’s squeaking ponticello bowing of its lowest fingered pitch. As in Scene 88, these COORDINATED THIS scenes appear in a context in which the cello and piano have had a predictable relationship (in Scenes 159, 164, and 165), though not a homorhythmic one.

Tracing COORDINATED THIS across the time-canvas is different from how I thought of tracing SHARP9. In the case of SHARP9, I heard it in the first half of the piece and then went looking for it in the second half. The fact that I did not hear it again allowed me to form an image of the time-canvas as shaded by SHARP9 only for the first half, as an abstract painting may feature a certain color on one side that does not appear on the other side. COORDINATED THIS, on the other hand, does not appear until over
halfway through the piece. Discounting repeated listenings, there is no way I could have noticed its absence in the first half until I noticed its presence in the second half. But thinking in terms of the overall time-canvas, I am again able to envision one half of the piece as shaded by the COORDINATED THIS “color.” By thinking in terms of the overall sound-canvas rather than the ongoing sequence of events, I am able to conceive of both SHARP9 and COORDINATED THIS as variations in the shading of a certain expanse of time. Just as annular time and patterns help to prop up the aural plane at the level of the scene, the disposition of object types throughout the piece props up the overall time-canvas.

Both SHARP9 and COORDINATED THIS occur in just a few areas and are limited to one side or the other of the timeline in Figure 4.1. The WIGGLE, on the other hand, is easily the most common scene type in the piece; many of its appearances have already been discussed.\(^{100}\) It returns in various guises throughout the piece, with the longest stretch between appearances lasting only about ten minutes (between Scenes 129 and 149). The greater variety of the WIGGLE precludes my talking through each appearance. To do so would be fairly easy, if somewhat dull. But talking through each appearance of the WIGGLE would also result in an error of emphasis, for in speaking of “tracing a color” across the time-canvas, I am trying to capture what it sounds like to shift one’s focus away from the minute details of that color. Instead, what I aim to model in the musical realm is the way one’s gaze can sweep across a canvas from one patch to another of the same

\(^{100}\) The WIGGLE appears in Scene 1 (Figures 2.3 and 2.20), Scene 8 (Figures 2.21 and 2.25), Scene 37b (Figure 2.27), Scene 39 (Figure 2.28), and Scenes 99-101 (Figure 1.33).
color, or of similar colors. Hence the representation that fits most with the current
discussion is the timeline itself in Figure 4.1.

The WIGGLE starts and ends the piece. It is found so often that during its longest
absences are when I feel most afield as a listener. I never notice my ears are roaming, but
yet the WIGGLE seems to bring them back. Back where? Back here, back to the main here
of the piece. Like the looping designs of Pollock, the WIGGLE is “all over” the time-
canvas, always bringing my ears back to the surface. In fact, I am tempted to take the
Pollock comparison further. Part of viewing Pollock is imagining the very actions that put
paint on the canvas. With Feldman we do not necessarily imagine the pen-strokes of the
composer, but we are quite likely to imagine the actions of the cellist’s left-hand fingers as
they dance across the fingerboard, often with an unavoidable portamento between notes.

The WIGGLE is never presented exactly the same way twice. At times the WIGGLE
seems frenetic, at other times glacial. There are pairs of instances with nearly identical
notations, but even if the notations were precisely the same, the difficulties involved in
performance practically preclude any possibility of an exact sonic repetition. The
WIGGLE family is one that becomes more and more familiar as the piece goes on, and we
assimilate several types of musical behavior into this family. WIGGLES of various rates,
bandwidths, and bowing styles are juxtaposed against an equally wide variety of piano
objects, occupying several different pitch areas.

By describing how I trace WIGGLE, SHARP9, and COORDINATED THIS across the
time-canvas, I intend to show just a small part of how the aural surface is held in balance
by the distribution and scale of patterns and objects. The WIGGLE balances the whole,
appearing in a fairly consistent manner from start to finish. It becomes one of the most familiar places my ear returns to on the time-canvas. SHARP9, on the other hand, can be thought of as balanced by COORDINATED THIS. Since both object types appear on only one side of the time-canvas, they can be thought of as achieving some sort of balance between them.

Figure 4.1 is somewhat misleading in the importance it attaches to the aspects of the piece represented. I could have chosen any number of different sonic objects, patterned actions, or scene types to trace (appendices B and C show the variety I had to choose from). The WIGGLE was the easiest choice, as it is by far the most ubiquitous thing in the piece. If one were to stretch ideas about more familiar music to fit PIACF, one might even venture to call the WIGGLE the main theme. Certainly it could be thought of as a chief subject of the work, in that it takes up a preponderance of the piece’s overall time span. Since, in keeping with the ethos of the abstract expressionists, the piece is really about nothing but its contents, then it is probably most about what is found most within.

The way these objects and patterns are spread out over the course of the piece is what creates a balance of vibrating stasis at the level of the piece as a whole, just as the arrangement of individual objects in a scene gives rise to the stasis of the individual aural plane. When tracing an object or pattern across the canvas, I imagine the pattern as always already there. When I hear another instance of an object or pattern during the course of the piece, it is not so much a re-appearance as it is simply another patch of that same color or figure. Again, let me stress the fact that it is rare for a pattern to seem as if
it makes a journey or undergoes a transformation (as was the case with the RISING
TETRAD or the opening of *Triadic Memories*). The distribution of the pattern in time is
more like the distribution of a color in space: it does not progress from one patch to
another in a temporal sense. In fact, the irregular distribution of patterns in late Feldman
is often part of the means of subverting the temporal sense of linear time. This
subversion helps create and sustain the feeling of stasis the late pieces afford us. As in
moment forms as described by Kramer, it is the seemingly arbitrary succession of scene
types that allows us to listen in a “vertical” fashion.101

What seems to guide the temporal placement of each scene type is that “sublime
mathematics” of scale and color so sought after by painters since Matisse. Matisse once
claimed that, in his own painting, “questions of pictorial materiality haven’t the slightest
importance. It is the quantity of blue, green, or red that make up the expressive harmony
of my painting.”102 To look at such a painting as a whole is to widen one’s gaze from the
individual figures and to feel instead the peripheral impact of the overall balance of color.
Yve-Alain Bois and Greg Sims quote Matisse himself in describing this sort of balance:

> “I ... started painting in planes, seeking the quality of the picture by an
> accord of all the flat colors.” And a little further on in the same discussion,
> Matisse talks about Fauvism as a “reaction against the diffusion of local
tone in light. Light is not suppressed, but is expressed by a harmony of
> intensely colored surfaces.” The harmony involves the whole surface of

102 Quoted in Yve-Alain Bois and Greg Sims’ 1994 article “On Matisse: The Blinding: For Leo Steinberg,”
*October* 68 (1994), pp. 60-121.
the painting, and results from the sum of colored surfaces opposed in it;
once this harmony has been found, the painting tenses up...  

Feldman once claimed that “one of the problems with music is that it never had its Matisse.” Perhaps Feldman filled those shoes. But how does one achieve the Matisse-like harmony of colored planes in music, which by necessity must unfold in linear time? I believe Feldman found an answer in his use of patterns. Patterns are easy to remember and easy to recognize through even quite severe warpings. Patterns also give the feeling of being infinitely extendable—when I hear a pattern, I hear what I assume could be one swath of a sonic texture that could easily have begun earlier or ended later. When I hear the same pattern at a different point in a piece, it is easy to imagine that the pattern was always already there, and I have just now brought my attention back to it. How much of each pattern Feldman places here or there in the timespan of the piece is analogous to how large an area of color Matisse places here or there on the canvas. If every scene were of a predictable length, a rhythmic aspect of form would arise, destroying the stasis of the surface by allowing us to predict the upcoming changes from scene to scene, if not the contents of the scenes themselves. If each scene were incredibly long, we would lose sight of the forest for the trees, getting bogged down in an intense focus on one pattern’s aural plane and losing that important peripheral awareness of the time-canvas as a whole. If each scene were very short, our ears could never come to rest on a single area of the time-canvas, and it would be difficult to conceive of a static whole.

103 ibid., p. 94.

Strategy 2: Listen for the Small Differences

My second strategy complements the first strategy. Together they form two sides of an ever-shifting process of listening. Bois describes the process of viewing the flat-plane paintings of Matisse as the “irresolvable oscillation of our perception” between “the desire to stare (at the figures) and the desire to perceive the whole painting.” In following the colors, we tried to take in the entire time-canvas, to feel it as a balanced whole. In listening for the small details, we are doing the equivalent of staring at the figures.

Of course, the analogous painting would have to be a canvas large enough and without sharp enough figures that one must actually defocus the eyes to enter the plane. A perfect example would be the large works of Mark Rothko. With these works, it is often fruitful to almost look beyond the surface, to let the eyes’ point of focus purposely fail to coincide with the plane of the painting’s surface, and thus to swim in a world of color and vibration inaccessible through a harder focus. Indeed, many of Rothko’s paintings almost force such a viewing, with their hazy colors confusing the eye as to what depth to best focus on. Instead, the focus shifts from figures to color; and more minute differences of color are noticed than may be possible through a viewing more focused on the surface of the canvas.

By focusing on the smallest details, one withdraws attention from the piece as a whole, and even from the scene as a whole. These remain in some sort of aural

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“periphery;” that is, we cannot help but remember what has just happened or predict what will happen next, but instead of being entrained across the surface in time, beyond the here and now, we focus on individual points. By focusing on the details of each part as it happens, the entire piece comes alive as a surface incredibly thick with detail. The variety in the smallest details occurring in the interactions between just two notes (as in Scene 50) mirrors the variety of detail in reappearances of the larger scene (as pointed out earlier, even between scenes notated identically). One is left in the end with the impression that anywhere one looks in the entire time canvas one can “zoom in” to a level of minute detail that will be equally rewarding. This is a far cry from formulaic examples of, say, a classical piano sonata, where one often need hardly listen to the main theme’s recapitulation, since the entire idea is clear from its outset.106

Figure 4.2 gives both score and spectrograph for an excerpt from Scene 69. Here we have an aural detail that is impossible to see in the score but which forms a great part of the interest of the scene. The piano chord, played on an in-tune instrument, creates a very reliable beating at a certain frequency and rate of amplitude modulation. As the original notes of the chord decay, this beating becomes more noticeable. However, we are not usually in the habit of tuning our ears to the interplay of overtones in a chord’s decay. In this case, the presence of the beating is brought to our attention by the cello, which creates a number of beat-like shakes by following the instruction given by Feldman when this notation was first used in Scene 31: “bend tone slightly.” When the cellist barely

106 A teleological view of the history of music towards modernism might note the importance of re-writing and slightly varying the themes of the recapitulation, as happens in Mozart and Beethoven sonata forms, as a step toward the sort of all-over non-redundant detail which is found in late Feldman.
moves a finger around on an already enharmonically detuned natural harmonic, the note
does not so much undergo a pitch bend as an amplitude modulation, a rhythmic
oscillation between levels of presence or volume. In other words, the effect is a manual
beating, and as this manual beating trails off through the decrescendo, I have the audio
illusion of the piano’s beating getting louder. In the spectrograph of Figure 4.2, the
piano’s beating is clearly visible. The beating of the piano is easier to see than the cello’s
shakes, which in each case precede the piano’s beating at a slightly higher frequency. The
greater clarity of the piano’s beating in Figure 4.2 is a result of the less noisy tone of a
sustained piano as compared to a slightly off-center cello harmonic. Close listening and
spectrographic evidence both support a hearing in which the piano’s beating is actually
louder than the decay of its fundamentals.

The experience of this scene, to me, is one of imagining extraordinary attributes
of the sounds. It is hard not to hear the cello as “stirring up” the decaying piano sounds.
Since I do not notice the decaying piano’s beating right away (it is pushed from my
attention by the more salient shakes of the cello), it comes across as something like a
ripple in a pond, whose cause we can easily assume to be the cello’s shaking.
Furthermore, there is a set number of piano beats for each version of the cello’s shake.
When the cello shakes six times, the piano is allowed four quarter notes worth of beating
time—about eleven beats. When the cello shakes five and four times, the piano gets three
and two quarter notes worth of beating time—about nine and seven beats, respectively.

After the first occurrence of this scene type (about eleven minutes into the piece), I
am more likely to listen to the way chords beat as they decay. By listening so closely to the
details in one area, I change my way of thinking about others. Now any time I hear a
dissonant piano chord decay over time, I am more attuned to the interplay of frequencies
beyond the fundamentals. This is not a look beyond the aural surface so much as a more
minute examination of that surface’s details.

The type of listening in which we focus intently on details requires a certain state
of mind often described as “meditative.” Feldman himself speaks of hearing or writing
with a certain concentration. He cultivates this meditative concentration by slowing
himself down in the compositional process. Feldman in his later career wrote only at the
piano, and he copied each page in ink before starting another page. He was always
concerned with keeping the feeling of unbroken concentration throughout a piece. When
the concentration broke, the piece ended. Hence it would be impossible to predict how
long a piece would be when one began composing it this way, for it would depend on
one’s ability to hold such a concentrated state, and to re-enter that state each day of work.
When the material could no longer hold his concentration, Feldman let the piece die of
old age, without trying to wrap it up or lead it to a sense of closure.107

Strategy 3: Listen for Mood and Emotion: Loneliness, Loss, Death

In writings toward the end of his life, Feldman was preoccupied with death and loss.
Feldman was a staunch modernist who had outlived most of his friends in the worlds of

107 Morton Feldman Essays (1985), p. 89. Information on Feldman’s compositional process comes from
Bunita Marcus’ lecture Structure and Notation in the Music of Morton Feldman.
painting and music, still plying his lonely craft as he had for years, with a diminishing public audience and an ever-increasing reliance on the very academic system he had once decried (his final years were spent as the Edgar Varèse Chair of Composition at the State University of New York at Buffalo). As his health declined, so did his eyesight, making the appreciation of painting more difficult and leading to his interest in nomadic rugs. He wrote a number of eulogies and dedicated pieces to many of his deceased friends (e.g., Mark Rothko, Frank O’Hara, Philip Guston, and Stefan Wolpe). His mortality was an issue from the time of his cancer diagnosis, and he certainly felt the need to cement his place in history before he died. One senses that Feldman thought of himself as the last of a dying breed. His lamentation on the extinction of the nomadic rug-maker parallels his own position as a crafter of “hand-made” abstract music:

The degeneration of rugs happened when people wouldn’t sit for three months like an idiot ten hours a day, you see, they started to use synthetic dyes—well, they started to value their time, that’s when the rug world disappeared. I am very interested in rugs in the sense of being involved with the amount of work and solitary time involved.

When I say the third strategy for hearing overall form in late Feldman is to listen to mood and emotion, the mood I am talking about is generally one of loneliness and the emotion is one of loss and grieving. What is important to Feldman and his painters alike is a direct communication of the idea. But what is the idea? For Rothko, and I think for

\[\text{\textsuperscript{108}}\] See in particular the biting commentary in “Boola Boola” (1966), in Give My Regards to Eighth Street, p. 45-49.

Feldman, the idea is in large part the expression of a nameless emotion closely associated with death and loss. Rothko once made a list of seven ingredients that were important to the painter. I find the list well suited for the discussion of late Feldman, as well. First, “there must be a clear preoccupation with death—intimations of mortality.” Second on the list is sensuality: “Our basis of being concrete in the world. It is a lustful relationship to things that exist.” These two ingredients are at odds with one another, as death will inevitably take away things we sensually desire, or take us away from them. Hence, tension is the next ingredient, “either conflict or curbed desire.” Ingredients four, five, and six are “irony,” “wit and play,” and “the ephemeral and chance.” The final ingredient is just a smattering of hope: “10% to make the tragic concept more endurable.”

Writers have commented on the sensuality of late Feldman, how he dwells on each chord, leaving room to breathe and to explore the sounds in an almost physical way. These moments of closeness with the sounds take on a poignancy when we locate them within a context of change and loss. We never know if this will be the last time we hear a pattern or a particular sonic object. Once we are entrained to Feldman’s sonic world, we often feel a very real sensual desire to hear these known objects and patterns again, a desire which is in the end unfulfilled. The very timelessness of the music offers an illusion of hope, as the individual moment stretches to such a wide present.

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110 From Rothko’s address to the Pratt Institute in 1958, in Writings on Art, pp. 125-126.

111 Chief among them Bunita Marcus, who went as far as to describe certain pieces as almost explicitly sexual in her 2011 lecture Structure and Notation in the Music of Morton Feldman. In “The Sounds of the Sounds Themselves: Analyzing the Early Music of Morton Feldman” (1996), Catherine Hirata explores the sensual idea of “touch.”
the hint of a promise that we could dwell on a scene forever, or that we could keep returning to a certain scene we felt close to. But patterns break down or stop, scenes end, the piece eventually ends.

To hear Patterns in a Chromatic Field as an expression of loss is to listen always for decay, for receding, for slowing down, for a sort of blur of categories, as if the notes can no longer cohere. But it is also to hear each moment as an intense and unique expression of living, of being here, if fleetingly. Musical processes of loss take place within many scenes in PLACF. The example of the beating chord overtones (Figure 4.2) is a small-scale example. In the case of the piano chord, most of the sense we make is of the remnants of the initial attack. In the piece’s many THIS-THAT scenes, the interaction between the two objects is understood in terms of their decay. On a larger scale, events like the gradual decay of the RISING TETRAD in scenes 55-61 (see Figures 2.26-2.30) allow a similar dwelling on loss and death, this time of the overall pattern rather than the individual component objects.

Feldman described his music as making sense in its receding:

In my own music I am so involved with the decay of each sound, and try to make its attack sourceless. The attack of a sound is not its character. Actually, what we hear is the attack and not the sound. Decay, however, this departing landscape, this expresses where the sound exists in our hearing—leaving us rather than coming toward us.112

112 “The Anxiety of Art” (1965), in Give My Regards to Eighth Street, p. 25.
Such an idea is pregnant with possible meanings, from the entirely literal (recall Varèse on
the time it takes a sound to reach the audience) to more metaphorical ways of thinking
about musical feelings of loss.

We might think of the loss of tonality, which was something Feldman discussed in
terms reminiscent of Schoenberg—he felt the tragedy of the hard-line modernist,
mourning the impossibility of writing the comforting sort of tonal music he loved his
whole life. An avowed fan of Sibelius and Schubert, and conversant in the classical piano
repertoire from his years of piano study as a child and young adult, Feldman felt keenly
his place in history after the death of the cultural context that made tonal music possible.

Feldman’s reluctance to turn to other sorts of compositional systems, such as the
academic serialism of his time or the carefully orchestrated chance techniques of his
friend Cage, increased his sense of loss. Feldman was simply too stubborn to accept what
he saw as idea-driven composition, feeling that reliance on system was a way around the
very anxiety he thought necessary to real artistic expression. The reluctance to work
within systems shared by other composers cut him off not just from a world of
composerly camaraderie, but also from the wider performances, career opportunities, and
financial support enjoyed by his more academically oriented counterparts. Feldman’s
dogged adherence to the mission of abstract art was strong enough to seriously
undermine his friendship with Philip Guston. The two quit talking after Guston’s sudden
shift to the more representational, comic-book style he adopted in the 70s, a rift that was
never quite mended in Guston’s lifetime.113

113 At the end of his life, Feldman expounded upon this ideologically-threatened friendship in his notes on
“For Philip Guston” (1986), in Give My Regards to Eighth Street, p. 198.
There is the tragedy of the loss of youth. The loss of his eyesight in particular troubled Feldman immensely. Here was a man who had built a life around art, almost more so than music, and now as he entered his final maturity as a composer he could no longer see the canvases he held so dear. I read in the half-pedaled haze of much of Feldman’s later piano writing a reflection of his rapidly-declining eyesight. As he could no longer hold the surfaces of his favorite paintings in focus through the thicker and thicker lenses he wore, he explored sound worlds exhibiting a similar lack of focus. This tendency finds its ultimate statement, perhaps, in the 1985 piece for orchestra entitled Coptic Light, in which Feldman attempted “to create an orchestral pedal,” taking as an impetus Sibelius’ observation that the orchestra lacks the sustain pedal enjoyed by the piano.

The loss of youth is perhaps best expressed in the final movement of Rothko Chapel. Here Feldman introduces a lush, romantically beautiful, entirely tonal “Hebraic” melody he had written at age thirteen. Why include this melody in a piece written in memory of his good friend? Like Feldman, Rothko felt keenly the mission of abstract art and the impossibility of turning back to previous models. To incorporate this childhood melody is to look back to a time when such preoccupations did not yet matter, to a time before Feldman felt compelled to write in a more abstract idiom.

Finally, and most keenly, Feldman felt the loss of his friends. Joan LaBarbara noted in performing Three Voices (1982) that the two loudspeakers, each assigned to a

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114 Bunita Marcus stressed the importance of this often-overlooked biographical fact in her 2011 lecture Structure and Notation in the Music of Morton Feldman.

115 “Coptic Light” (1986), in Give My Regards to Eighth Street, p. 201.
different prerecorded track, looked like tombstones. Feldman replied that it was fitting, as he had been thinking of Frank O’Hara (the author of the text) and the recently deceased Philip Guston when he wrote it. Joan LaBarbara’s living voice interacted as Feldman’s own with the now gone and disembodied voices of his close friends. He often dwelt on the tragically early deaths of Rothko and Pollock. Extremely devastating was the accidental death of Frank O’Hara in 1966. O’Hara was not only a friend, but almost a public liaison for the entire New York School; his poems frequently acted as documents of the once rooted and now scattered scene so important in the 50s. In speaking on Frank O’Hara in 1972, Feldman dwelt on the death of specific friends and comrades before generalizing about the death of an entire era:

The day Jackson Pollock died I called a certain man I knew—a very great painter—and told him the news. After a long pause he said, in a voice so low it was barely a whisper, “That son of a bitch—he did it.” I understood. With this supreme gesture Pollock had wrapped up an era and walked away with it ... It was big stakes we were after in those times. Through the years we have watched each others’ deaths like the final stock quotations of the day.  

*         *         *

When I return to my grandparents’ farm, all that will remain of the old house will be the hearth. But those times I slept in front of the fire or brought in the never-ending

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116 “Frank O’Hara: Lost Times and Future Hopes” (1972), in Give My Regards to Eighth Street, p. 103.
supply of firewood my grandfather always demanded, those will always exist. As I write this, I hold in my pocket a cartridge from one of the rifles they fired at his funeral. There are hundreds of millions of cartridges that look just like this one, millions of them from blanks shot at military funerals, and thousands of people carrying them around. But in this one’s physical being I feel a history of loss. In the blackened edges of the shell I can sense the explosive power that ripped open metal, I can almost hear the report. Thinking back, I remember what a dull sound it was, what a plain sound. What a weak sound. As it echoed through the thick winter air, I thought of that moment as frozen. I thought of it already in terms of a moment I could remember. I thought about what it means that a life can be represented in a single volley of fire, and how nothing, not even the explosive power of a gunshot, not even the time-honored rite of the funeral, can lead a lifetime to a neat sense of closure. The world moves in such vast ways as to make an individual life seem as weak and transitory as the pops of the rifle. Any human life leaves Time itself undisturbed. Listening to late Feldman can teach you a lot—it has taught me how to look at visual art, it has taught me to listen more closely, but most of all it has taught me to revel in the details of the moment, that I might better understand the infinite.
### Appendix A: PIACF Scenes

Scenes, Timings (Tzadik recording), Score location [page/system/[measure, when necessary]]

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Appendix B: Typology of Scenes in *PLACF* by Object

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<td>Between 1 and 2</td>
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<td>MICRO-WOBBLE</td>
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<td>THIS-THERE + DRONE</td>
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<td>THIS-THERE-THERE + CHORDS</td>
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<td>THIS(^c)/THIS(^p) - THAT(^c)/THAT(^p)</td>
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<td>THIS-THERE + THIS</td>
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<td>THIS(^3)-THAT(^3)</td>
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<td>BETWEEN 3 and 4</td>
<td>DESCENT + THIS-THERE-THERE-THERE</td>
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<td>THIS-THERE/THIS, THIS-THERE/THAT</td>
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<td>THIS(^X)-THAT(^X)-THAT(^Y)/THIS</td>
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Appendix C: Typology of Scenes in *PLACF* by Common Actions

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<td>RISING TETRAD and DRONE</td>
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<td>exploded RISING TETRAD and DRONE</td>
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<td>RISING TETRAD / THIS-THAT</td>
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<td>RISING TETRAD / WIGGLE</td>
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<td>CHORDWIGGLE / THIS-THAT</td>
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<td>WIGGLE / RISING TETRAD</td>
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<td>DESCENDING CHORDS / THIS-THAT</td>
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Selected Bibliography


Figure 1.1: The “long, late pieces” of Morton Feldman

1978  *Why Patterns?* (flute, piano, percussion)
1979  *Violin and Orchestra*  
     *String Quartet*
1980  *The Turfan Fragments* (orchestra)
1981  *Patterns in a Chromatic Field* (cello, piano)  
     *Triadic Memories* (piano)  
     *Bass Clarinet and Percussion*
1982  *For John Cage* (flute, piano)  
     *Three Voices*
1983  *Crippled Symmetry* (flute, piano, percussion)  
     *String Quartet II*  
     *Clarinet and String Quartet*
1984  *For Philip Guston* (flute, piano, percussion)  
     *For Bunita Marcus* (piano)
1985  *Violin and String Quartet*  
     *Piano and String Quartet*  
     *Coptic Light* (orchestra)
1986  *For Christian Wolff* (flute, piano)  
     *For Stefan Wolpe* (chorus, two vibraphones)  
     *Palais de Mari* (piano)
1987  *For Samuel Beckett* (chamber ensemble)  
     *Piano, Violin, Viola, Cello*
Figure 1.2: Hanninen’s theory of segmentation as it applies to late Feldman

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<th>Structural</th>
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<td>Disjunction</td>
<td>Association</td>
<td>Theory</td>
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<td><strong>Criteria:</strong></td>
<td>$S_1$ (temporally adjacent):</td>
<td>$S_2$ (atemporal):</td>
<td>$C$</td>
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<td>$S_1$-timbre</td>
<td>$S_2$-timbre</td>
<td>$C_{\text{cseg}}$</td>
<td>$T_{\text{row}}$</td>
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<tr>
<td>$S_1$-duration</td>
<td>$S_2$-duration</td>
<td>$C_{\text{int}}$</td>
<td>$T_{\text{lyne pair}}$</td>
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<tr>
<td>$S_1$-pitch</td>
<td>$S_2$-pitch</td>
<td>$C_{\text{pitch}}$</td>
<td>$T_{\text{UN}}$</td>
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<td>$S_1$-dynamics</td>
<td>$S_2$-dynamics</td>
<td>$C_{\text{pc}}$</td>
<td>$T_{\text{3PRG}}$</td>
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<tr>
<td>etc.</td>
<td>etc.</td>
<td>etc.</td>
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**Segments:**

- Genosegments (potentially perceptible groupings supported by one $S$ or $C$ criterion)
- Phenosegments (readily perceptible groupings supported by one or more $S$ or $C$ criterion)
Figure 1.3: *Patterns in a Chromatic Field*, page 3, system 3
Figure 1.4: Genosegments supported by S₁-imbre

m.1
\[ E \neq E \neq E = E \neq E = E \neq E \neq E \neq E \neq E \neq E \]

m.3
\[ \neq E = E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \]

m.5
\[ \neq E = E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \]

m.7
\[ \neq E = E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \neq E \]

m.9
\[ \neq E \neq E \neq E = E \neq E = E \neq E \neq E \neq E \neq E \neq E \neq E \]
Figure 1.5: Sequence of events showing grouping by $S_{2\text{-timbre}}$
Figure 1.6: S\textsubscript{1}-timbre genosegments augmented by S\textsubscript{2}-timbre designations

m.1 \quad C_1 \neq P_2 \neq C_2 = C_3 \neq P_3 = P_4 \neq C_4 \neq P_5 \neq C_5 \neq P_6 \neq C_6

\begin{align*}
\text{C7} & \neq P_8 \neq C_8 \neq P_9 \neq C_9 \neq P_{10} \neq C_{10} \neq P_{11} \neq C_{11} \neq P_{12} \neq C_{12} \\
\text{C13} & \neq P_{14} \neq C_{14} \neq P_{15} \neq C_{15} \neq P_{16} \neq C_{16} \neq P_{17} \neq C_{17} \neq \neq P_{18} \\
\text{C19} & \neq P_{20} \neq C_{20} \neq P_{21} \neq C_{21} \neq P_{22} \neq C_{22} \neq P_{23} \neq C_{23} \neq P_{24} \neq C_{24} \neq P_{24} \\
\text{C25} & \neq P_{26} \neq C_{26} \neq P_{27} = P_{28} \neq C_{28} = C_{29} \neq P_{29} \neq C_{30} \neq P_{30}
\end{align*}
Figure 1.7: Genosegments supported by $S_{1\text{-rest}}$
Figure 1.8: $S_1$-adjacency genosegments between timbres, discounting those eliminated by $S_{1_{\text{rest}}}$ disjunctions.
Figure 1.9: Passage laid out to show $S_1$-duration

\begin{verbatim}
C1 C2 C3 C4 C5 C6 (rest) //
P1 P2 P3 P4 P5 P6 (rest) //
C7 C8 C9 C10 C11 C12 (rest) //
P7 P8 P9 P10 P11 P12 (rest) //
C13 C14 C15 C16 C17 C18 (rest) //
P13 P14 P15 P16 P17 P18 (rest) //
C19 C20 C21 C22 C23 C24 (rest) //
P19 P20 P21 P22 P23 P24 (rest) //
C25 C26 C27 C28 C29 C30 (rest) //
P25 P26 P27 P28 P29 P30 (rest) //
\end{verbatim}
Figure 1.10: Disjunctions from $S_1$-direction

a.) within timbral groups (repeats each sounding measure):

\[
\begin{align*}
\text{cello:} & \quad C + C + C - C + C + C - \\
& \\
\text{piano:} & \quad P + P + P + P + P + P - \\
& \\
\end{align*}
\]

b.) timbrally undifferentiated:

\[
\begin{align*}
C1 + P1 & + P2 + C2 + C3 - P3 + P4 - C4 - P5 - C5 + P6 - C6 - \\
& \\
C7 + P7 & + P8 + C8 + P9 + C9 + P10 - C10 - P11 - C11 + P12 - C12 - \\
& \\
C13 + P13 & + P14 + C14 + P15 + C15 + P16 - C16 + C17 + P17 - C18 + P18 - \\
& \\
C19 + P19 & + C20 - P20 + C21 - P21 - C22 + P22 - C23 + P23 - C24 + P24 - \\
& \\
& \\
\end{align*}
\]
Figure 1.11: $S_1$-pitch within each timbral group
(repeated in each sounding measure)

\begin{align*}
\text{cello} & \quad \begin{array}{c}
\text{piano} \\
+9 & +11 & -13 & +10 & +11 / / -28
\end{array} \\
\begin{array}{c}
+10 & +11 & +8 & +9 & +11 / / -49
\end{array}
\end{align*}
Figure 1.12: S\textsubscript{1}-pitch across all events

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<th>-4</th>
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189
Figure 1.13: $S_2$-pitch

**Cello**

Interval: 7 2 8 3 8

**Piano**

**Both**
Figure 1.14: S\textsubscript{2}-duration available permutations
(those actually used in bold)

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Figure 1.15: C\textsubscript{seg} genosegments

\begin{align*}
\text{cello} & \quad \text{piano} \\
\text{both} & \quad \text{both}
\end{align*}
Figure 1.16: $C_{ic}$, $C_{int}$, and $C_{ip}$

\[ C_{ic} \]

\[ C_{int} \]

\[ C_{ip} \]

193
Figure 1.17: $C_p$, $C_{pc}$, and $C_{sc}$ comparisons between cello and piano

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<tr>
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<th>Piano</th>
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<td>$C_p$ pitch set:</td>
<td>{Fb2,C#3,B#3,Cb3,Gx3,Ab4} ≠ {B1,A2,G#3,E4,Db5,C6}</td>
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<td>$C_p$ pitch segment:</td>
<td>&lt;Fb2,C#3,B#3,Cb3,Gx3,Ab4&gt; ≠ &lt;B1,A2,G#3,E4,Db5,C6&gt;</td>
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<tr>
<td>$C_{pc}$ pc set:</td>
<td>{01489E} = {01489E}</td>
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<tr>
<td>$C_{pc}$ pc segment:</td>
<td>&lt;410E98&gt; ≠ &lt;E98410&gt;</td>
<td>(\triangleleft) &lt;E98&gt; = &lt;E98&gt; (\triangleleft) &lt;410&gt; = &lt;410&gt;</td>
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<tr>
<td>$C_{sc}$ set class:</td>
<td>6-14 [013458] = 6-14 [013458]</td>
<td>(\triangleleft) 3-3 [014] = 3-3 [014] (\triangleleft) 3-2 [013] = 3-2 [013]</td>
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Figure 1.18: Phenosegments and their supporting criteria

\[
\begin{align*}
S_1 \text{-pitch} & : C_{\text{int}<9,11>} \quad C_{\text{int}<10,11>} \\
C_{\text{int}+9,+11} & : C_{\text{tp}+10,+11} \\
C_{\text{pc}<410} & : C_{\text{pc}<E98>} \\
C_{\text{sc3-3}[014]} & : C_{\text{sc3-3}[013]} \\
C_{\text{seg}<0244135>} & : C_{\text{tp} \{Fb2, C#3, B#3, Cb3, Gx3, Ab4\}} \\
\end{align*}
\]

\[
\begin{align*}
\text{cello} & \quad C_{\text{ceg}<012345>} \\
\text{piano} & \quad C_{\text{tp} \{B1, A2, G#3, E4, Db5, C6\}} \\
\end{align*}
\]

\[
\begin{align*}
C_{\text{int}<10,11>} & : C_{\text{int}<9,11>} \\
C_{\text{tp}+10,+11} & : C_{\text{tp}+9,+11} \\
C_{\text{pc}<E98>} & : C_{\text{pc}<410>} \\
C_{\text{sc3-2}[013]} & : C_{\text{sc3-3}[014]} \\
\end{align*}
\]

both:

\[
\begin{align*}
S_1 \text{-rest} & : C_{\text{pc}<01489E>} \\
S_1 \text{-pitch} & : C_{\text{sc6-14}[013450]} \\
C_{\text{ceg}<012>} & : C_{\text{ceg}<012>} \\
\end{align*}
\]
Figure 1.19 Four instances of
\[ \text{HEX} = \{ C_{\text{pc}} \{ 01489E \}, C_{\text{ac6-14}} \{ 013458 \} \} \]
Figure 1.20: SHORTRISE A and SHORTRISE B
csegs from Figure 12:

<0/1247583T6E9>  <0/1245783T6E97>  <0/12457836/T9E>  <0/14275386T9E>  <0/1245/7836T9E>

cseg "population":

0/1

- 4 -- 5 -- 3 -- 6 -- 11 --
- 2 -- 7 -- 8 -- 10 -- 9 --
Figure 1.22: Comparison of spectrograph from Scene 8 of PLACF (top) and Motherwell’s *Elegy to the Spanish Republic*, 70 (bottom)
Figure 1.23: First Trial scene in *Einstein on the Beach*

Linear time:

```
1 2 3 4 5 6 7
1 2 3 4 5 6 7
1 2 3 4 5 6 7
```

Annular time:

```
7 G C E 2
6 D A E 3
5
4

1
```
Figure 1.24: First Train scene from *Einstein on the Beach*
Figure 1.25: Clapping Music, first three measures
Figure 1.26: Annular time in *PLACE*, Scene 6

a. Piano

b. Piano
   Cello

c. Piano
   Cello
   etc.

203
Les Moutons de Panurge
for Frans Bruggen
For any number of musicians playing melodx instruments
and any number of nonmusicians playing anything

Frederic Rzewski

Musicians
all in strict unison; octave doubling allowed if there are at least 2 instruments in
each octave.

Begin ca. \( \textbf{\text{J}} = 150 \), accelerate to ca. \( \textbf{\text{J}} = 300 \).

\[ \text{\textit{ff sempre (use amplification)}} \]

Instructions: Read from left to right, playing the notes as follows: 1, 1-2, 1-2-3, 1-2-3-4, etc. When you have reached note 65, play the whole melody once again and then begin subtracting notes from the beginning: 2 through 65, 3 through 65, 4 through 65 . . . 62-63-64-65, 63-64-65, 64-65-. 65. Hold the last note until everybody has reached it, then begin an improvisation using any instruments.

Nonmusicians
are invited to make sound, any sound, preferably very loud, and if possible are provided with percussive or other instruments. The Nonmusicians have a leader, whom they may follow or not, and who begins the music thus:

\[ (\textbf{\text{J}} = 150) \begin{array}{cccccc}
\text{\textit{f}} \\
\text{\textit{f}} \\
\text{\textit{f}} \\
\text{\textit{f}} \\
\end{array} \]

In the melody above, never stop or falter, always play loud. Stay together as long as you can, but if you get lost, stay lost. Do not try to find your way back to the fold. Continue to follow the rules strictly.

As soon as the pulse has been established, any variations are possible. Suggested theme for nonmusicians: "The left hand doesn't know what the right is doing."
Figure 1.28: String Quartet No. 2, 23/2
Figure 1.29: Scenes 21 and 22 from *PLACF*
Figure 1.30: Initial analysis of scenes 87-92, excerpt
Figure 1.31: Score of Scenes 87-92
Figure 1.32: Initial analysis of scenes 99-100
Figure 1.33: Score of Scenes 99-101
a.) Scene 7: Hard, rectangular objects

b.) Scene 18: Soft, rounded objects
Figure 2.2: Edges in time

a.)

b.)

c.)

d.)

e.)

f.)
Figure 2.3: WIGGLE from PLACF Scene 1
Figure 2.5: Annular time in Scene 50
Figure 2.6: Lining up snapshots in Scene 50

a.)

b.)

c.)
Figure 2.7: The aural plane of Scene 50
Figure 2.8: Object-oriented vs. space-oriented attention in Scene 50

a.)

b.)
Figure 2.9: CHORD & STRAGGLER scene from *String Quartet No. 2*, pg. 15, 4:15
Figure 2.10: CHORD & STRAGGLER scene from *String Quartet No. 2*, pg. 15, 4:15, first 21 measures
Figure 2.11: Contents of the aural plane for the CHORD & STRAGGLER scene
Figure 2.13: Space-based attention in Scene 82

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Figure 2.14: Annular Time in Scene 82, taking into account piano’s grace notes
Figure 2.15: Spectrograph and object analysis in Scene 82

- Cello note
- Chord dyads
- Grace note dyads
- Chord-object horizontally and vertically integrated

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Figure 2.16: Score and object analysis in Scene 83
Figure 2.17: Piano objects in Scenes 82 and 83
Figure 2.18: *String Quartet No. 2, 115/3*
Figure 2.19: WIGGLE scenes in *PLACF*

WIGGLE
  8, 16, 27
WIGGLE|THIS
  11, 23, 32, 66, 149, 150
WIGGLE|THIS-THAT
  1, 2, 3, 10, 12, 13, 62, 63, 72, 98, 108, 151
THIS-THAT|Chord-WIGGLE
  155-157
WIGGLE|“Random” Chords
  “Tunnel” 76
  “Random” 153
3-note-WIGGLE|THIS-THAT
  99, 100, 101, 118, 119, 120
WIGGLE|RISING TETRAD
  Regular 37b
  Different contour 39
Figure 2.20: PLACF, Scene 1
Figure 2.21: $PLACF$ Scene 8, score and spectrograph
Figure 2.22: Visual framing in Eisenstein’s *Film Form*
Figure 2.23: Pattern in Scene 8

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25th

26th

27th

\frac{3}{2}

28th

29th

30th

31st

32nd

33rd

34th

35th

36th
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