

Of Repetition, Habit and Involuntary
Memory:
An Analysis and Speculation upon
Morton Feldman's Final Composition

by Brian Kane

Piano, Violin, Viola, Cello is the last piece Morton Feldman completed before his death. Finished on May 28, 1987, the work stands at the end of series of compositions that comprise the canon of Feldman's late works. Sebastian Claren, in his monograph Neither, Die Musik Morton Feldmans sees Piano, Violin, Viola, Cello in two distinct perspectives: on the one hand, the work can be characterized as "monolithic" and belongs with other works of Feldman's such as For Samuel Beckett, For Philip Guston, Piano and String Quartet, and Violin and Orchestra. In the "monolithic" works a musical opening in the conventional sense is not possible as the whole composition, and the entirety of the musical material and its unfolding are experienced and extended outward as a large, single block; the piece begins, develops, and ends with only subtle variations upon fundamentally similar and extremely limited material, moving at an extremely slow rate and relying on the strategy of repetition to produce its discourse. The discourse produces essentially a richer and richer accumulation of relations, details and distinctions within a single musical entity. On the other hand, Feldman borrows a

compositional technique found in pieces that precede the late "monolithic" works: the bar is maintained as the basic compositional unit, rather than the individual than the system. For example, a comparison nearly any page of the autograph score of String Quartet #2 with Piano, Violin, Viola, Cello will demonstrate the distinctive musical and notational differences between this final work and other late works of Feldman. On page 52-53 of the String Quartet #2 we see two distinct kinds of musical material: page 52, system 1, presents a three-part structure in 3/2 time where the violin 1 plays only on beats 2 and 3, violin 2 and viola play together in articulating a pattern of whole-note and half-note, while the cello articulates each beat in a three-note descending pizzicato figure; the next system on page 52, presents a different kind of material, where violin 1 is always rhythmically distinct from the rest of the quartet's homorhythmic chord; continuing to the third system, the viola is given rhythmic independence and violin 1 joins the other instrument's homorhythm; next, each system on page 53 sustains this material with unique variations. As one turns the page over we are shocked by the startling difference in musical material presented on page 54, where the repeat signs enclosing every bar now cover longer periods, and each instrument is suddenly rhythmically independent, building up a contrapuntal texture that alternates with bars sustaining only a single voice. In comparison, we need only glance at page five of Piano, Violin, Viola, Cello to see the vast

difference in formal construction; individual bars contain distinct materials which alternate and repeat according to a different musical logic than in the String Quartet #2. This paper will attempt to investigate the intricacies of this musical logic and its overall aesthetic effect. Part I will enumerate and describe the types of musical material used in the piece. Part II will work its way up from this analysis towards larger considerations of form, rhythm, timbre, and temporality. Finally, in Part III, this discussion will pave the way for some philosophical speculations about memory and time in Feldman's music, and make an attempt to glean the significance of Feldman's compositional project.

I

The first task is to define the various types of musical material that comprise Piano, Violin, Viola, Cello. Once these materials have been identified and their dispositions have been characterized, it will be much easier to understand the work's form. In all citations to the score I will use a special numerical system: page number, followed by system, followed by bar. For example: 17.1.6 refers to page seventeen, first system, sixth bar. More global citations like 23.1 will refer to page twenty-three, first system, and indicate more general features of the score that

are not necessarily particularized at the level of the individual bar.

There are a few basic features that generally characterize the musical material of Piano, Violin, Viola, Cello. Although the piano and the string trio are given distinct materials in the piece there exist important factors that mediate their strict independence. First, both piano and string trio share a relatively small register. Although in some of the string writing the cello plays in its lowest register, this is the exception and not the rule; overall, the piano and string trio are mediated in a very narrow pitch space. This fact is accentuated by the constant use of the damper pedal in the piano part, which continually sustains the register sounded by the piano and strings. This also helps to "melt" the distinct materials by covering over the sharp edges produced by the distinction between sound and silence. In actuality, there are few instances where the piece is actually silent, but as listeners we perceive a certain "silence" in these sustaining passages, yet without the shock of literal silence. The materials, no matter how diverse, aurally interpenetrate and blur into one another. But this interpenetration and blurring does not destroy the identity of the distinct materials; Feldman has pointed out elsewhere that a note in the viola and a note in the piano do not sound the same. Distinct timbral differences, in material that is related or even identical, produce a constantly shifting and subtly differentiated musical

surface, and an analysis that ignores these differences will lose the fascinating detail of Feldman's music in an abundance of generalities.

I have divided the piece into eleven types of musical material which I will characterize in order.

1. The first presentation of material Ia) is in the opening bars of the piece (1.1.1-5). The strings play extremely close-voiced chords built on the pitches of Bb, C, Db and D. The piano's chords are voiced in the same register as the strings and share the same pitch collection with the addition of the notes B and Eb. Occasionally, the strings play one of the piano's notes (ex: Eb in the viola at 1.1.4). Rhythmically, the strings and the piano are distinct from one another, avoiding homorhythmic attacks, but remaining bound to simple subdivisions of the bar. In 1.1.2-5 the piano plays a chord on the opening beat of the bar and then alternates attacks with the strings; the exception is in 1.1.1 where the strings play the downbeat. Material Ia) is tied to its immediate consequence, material Ib), presented in the latter half of the opening system (1.1.6-7). Here, a chord voiced for piano and a solo string harmonic is played on the downbeat. Although the instruments play in homorhythm, the chord disintegrates into its distinct timbral components. The piano's attack and decay are in sharp contrast to the harmonic's steady sustain. Material Ib) presents the complementary notes of the full chromatic in the piano part: G, Ab, and A are added in the

first chord (1.1.6) and E, F, Gb are added in the second chord (1.1.7). Rhythmically, material Ib) presents the most obvious contrast to Ia), simple homorhythm in comparison to simple alternation. Immediately, the organization of material Ia) and Ib) undergoes various rearrangements, some resembling the original order of presentation, some displacing Ia) and Ib) drastically. The manifold disposition of these two basic components of material I) comprise the opening section of the piece until the introduction of material II) (2.2.2-9), but within the opening section we see many of the strategies that Feldman uses to create his musical discourse. For instance the opening bar (1.1.1), where the strings play on the downbeat of the bar and the piano follows with two chords, is repeated at irregular intervals in the opening two pages. When we first hear initial presentation of material Ia) we might hear it in a "directional" or "quasi-functional" manner, where the narrative would be as follows: the opening chord in the strings, with the piano following (1.1.1), sets off a brief course of musical events where the strings and the piano alternate (1.1.2-5); but this alternation is suddenly halted when the piano and strings play together (1.1.6-7). In the music that follows (1.1.8-9), the discourse picks up in mid-stream, by repeating the alternation of strings and piano (1.1.8-9 literally repeats 1.1.2 and 1.1.4). When we hear the opening bar (1.1.1) now reiterated at 1.2.1 we are unsure if it still has the function of an "opening" gesture;

the reason for our uncertainty is that this "opening" gesture makes its sudden appearance *after* material thought of as previously associated with the middle of Ia) (1.1.8-9). Moreover, encasing 1.2.1-2 inside repeat signs places extra emphasis on this already problematic entrance. It's next appearance, at 1.3.4 sounds more like the opening we may have expected: coming after the closure of Ib) (1.3.1-3) it initiates another musical period. But instead of this period ending, as it should with Ib), we get another reiteration of the "opening" gesture (2.1.5) followed immediately by the piano part of Ib) without its associated harmonic in the strings. This constant reshuffling and re-organization of limited musical materials produces the puzzling experience of a musical discourse that feels *as if it has a logic, but a logic that remains inscrutable.*

2. Material II) is introduced at 2.2.2-9. Predominately characterized by its 7/8 meter, the strings and the piano are again locked in a series of rhythmic alternations. Feldman divides the 7/8 bar into two nearly symmetrical durations, a half-note and a dotted-quarter note. In the first statement of material II) the piano chords alternate between the two possible configurations of these durations (half plus dotted-quarter or dotted-quarter plus half) while the string parts play the opposite configuration, substituting a rest on the downbeat. This produces the sensation that the strings are continuing at the same slow pace from material I), while the piano has sped-up to an odd

sort of double time. Rather than sharing clusters between the strings and piano, both groups have become more differentiated in pitch and register. The strings are locked into a fixed and widely spaced voicing of the pitches A, B, and C, while the piano plays (what Claren calls) "free chromatic chords". In addition, the piano is occasionally given an ascending arpeggio figure, which contrasts with its free chromatic chords but is still accompanied by the strings fixed pitches (3.1.8). Although the pitches A, B, and C are, clearly, a transposed subset of the strings' original pitch set, the widely spaced voicing and fixed register makes the difference between materials I) and II) immediately audible. This difference is crucial for the formal unfolding of the piece -- up until page 7 only materials I) and II) are presented and undergo intensive repetitions and re-organizations; the formal arrangement of these repetitions and re-organizations is the same as in my discussion of material I)'s inscrutable logic.

Materials I) and II) begin their relationship at 3.1.9. Immediately following the first appearance of the arpeggio figure (3.1.8), the strings play a timbrally revoiced repetition of the opening bar (3.1.9), followed by a bar of silence. As a listener we are unsure what has been set into motion by the arpeggio figure -- it appears to act as a closing figure for material II) and trigger for material I); we are supported in this notion by its function at 3.2.6, where the arpeggio is immediately followed by another

reiteration of the opening bar. But soon the interposing of I) and II) happens more freely, and without the closing arpeggio acting as a triggering mechanism. Material I) suddenly appears at 3.3.3, stuck in the context of II), and Ib), lacking a sustained harmonic in the strings, makes a curious appearance a few bars later at 3.3.7. The next appearance of the arpeggio (4.2.7) is followed by the same chord from Ib) which appeared at 3.3.7 (and originally at 1.2.6), lacking a string harmonic, but now with a rest in front of it. These isolated piano chords begin to take up more and more space in the next few pages emphasizing a subtle shift in predominance towards the piano and away from the strings, until we reach the introduction of material III) at 7.2.5. In real time, the interaction of these two opening materials occupies just over 16 minutes.

Before moving on to the rest of the material, one thought regarding Piano, Violin, Viola, Cello's opening material is worth consideration. Claren names what I have designated as material I) and II) as the first and second "complex" of the basic material, intending this to connote a similarity to the traditional two-part organization of the exposition of a classical sonata-form. The question of the applicability or inapplicability of the traditional categories of the sonata to Feldman's music is worth some consideration: as I have tried to indicate by tracing the reappearance of the "opening" and "closing" gestures of material I), and the ascending arpeggio of material II) as a

"triggering mechanism," Feldman offers a different logic of continuation than the traditional model of exposition and development. Nor do we have the alternative logic of "developing variation," where material acts simultaneously as both exposition and development in its "equidistance from the center," as articulated first by Schoenberg and later by Adorno. *Feldman's compositional strategies present a unique formal problem: while suggesting the possibility of being read according to conventional narrative organization, the roles of key musical signifiers shift as the piece unfolds and produce an inscrutable logic of development that is simultaneously motivated and ambiguous.* I will save my attempt to examine this significance of Feldman's formal strategies for the second half of the paper.

3. Material IIIa) alternates, in blocks, between the piano and strings (7.2.5 7.3.6). The rhythmic alternation present between piano and strings in materials I) and II) are now absorbed into a single musical gesture. The 7/8 meter from material II) is still present but, rather than utilizing a quasi-symmetrical division of the bar, a new rhythmic gesture (comprised of two attacks an eighth note apart) is placed at the front half of the bar, preceded by a silent downbeat. When material IIIa) is first introduced in the strings, the pitches are limited to a Db and Eb dyad on the first beat followed by an E or Gb, comprising a limited pitch set of Db, Eb, E and Gb. This collection (pitch set=0235) is a transposed and slightly modified variant of

the material I)'s opening collection for strings (pitch set=0234). In the piano, two identical but transposed cells are used: Eb, F and Gb, and Db, Eb and E. The piano shares the same rhythmic disposition as the strings -- a dyad on the first beat, followed by an ascent. In all cases the piano plays only chords of pitch set=023, the same pitch set as the strings' A, B and C, from material II). As this material moves through the course of the piece these same rhythmic and pitch relations are maintained, while the entire cell may be transposed. Material IIIb) presents the same broken chord in the strings but now with the addition of a single piano note an eighth note before the strings' initial attack (8.3.1). In addition, the high note is played on the very last note of the bar and not immediately after the dyad. In the example cited of material IIIb) we see that the piano and strings together make up a collection of pitches, D, E, F and G, with pitch set=0235, the same as in string part of material IIIa). In some respects there is an affinity between material Ib) and material IIIb): the single, sustained string harmonic of Ib) is now given to the piano, while the chord from Ib), originally given to the piano, is now the broken chord given to the strings of IIIb).

4. Material IV) is presented predominately in the strings, while the piano occasionally plays a fixed chord (10.2.6-10.3.7). New sonorities, played homophonically, are associated with the "free chromatic chords" from material

II) in their relative freedom from limited pitch structures. Rhythmically, there are one or two chords per bar, beginning with a silent downbeat. The piano's fixed chord of F, Gb, Ab, Bb (pitch set=0135) is a variant of pitch set=0235 from material IIIa). The low Fb and Db in the cello contrast greatly with its usual repertoire of artificial harmonics and high notes, which have predominated the string writing thus far. By the time material IV) is introduced, the differentiation between contrasting materials occurs at a much quicker rate than in the opening pages of the work. This point can be clearly shown if we look at 11.1-2 and identify the materials: 11.1.1. is material IIIb), 11.1.2-4 is material IV), 11.1.5 is a slight rhythmic variant of material IIIb) just previously sounded at 11.1.1, 11.1.6 is an exact duplicate of material Ia) from 1.1.3, 11.1.7-8 is a developed arpeggio figure associated with material II), 11.1.9 11.2.4 are material IV) with the suppression of the strings at 11.2.1, and 11.2.5 is material II). The rapid juxtaposition of a variety of material in various stages of development begins to take on a highly differentiated and articulated character. After the slow "sounding-out" of the opening two materials, the piece rapidly begins, metaphorically, to take on the characteristics of a language in its subtle differentiations of content, and quasi-logical ordering of basic elements into sequences. It is as if the distinct materials take on the properties of phonemes, highly differentiated into categories like

diphthongs, fricatives, pallatives, etc., so as to form highly ordered and structured utterances.

5. Material V) presents two alternate actions for piano and strings (12.1). The strings play a fixed register triad of B, Db, and D (pitch set=023) sul tasto. This chord is identical in content to the A, B, and C, from material II. The lengths of the strings' duration changes drastically from as small as 5/8 to as large as 3/2. On the other hand, the piano plays two fixed dyads, comprising a small contrapuntal phrase that rhythmically expands, from 3/4 to 2/2 to 5/4 to 7/4. Two equal durations either fill the bar or are placed on either side of a silent middle beat. The piano plays only the pitches B, Db, and D, which, overlaps exactly with the pitches given to the strings. The left hand of the piano places the B and Db in the exact same octave as the string's corresponding pitches. However, the right hand of the piano places its Db and D one octave above the strings' voicing.

6. Material VI) again maintains two distinct activities for piano and strings as in Material V) (14.1). Here the piano plays more freely chromatic chords on the last eighth-note of the bar, while the strings play some new chords, and some already previously introduced. At 14.1.4-6 the strings play A, C, and D, (pitch set=035) another expansion from the fixed material of the strings in material II). When presented at 14.1, Material VI) is in a quasi-symmetrical form, or what Feldman might call "crippled symmetry". If we

disregard the changing meters and pitch content we see that 3 piano chord are presented (14.1.1-3) followed by a chord in the strings (14.1.4). Another piano chord sits in the axis (14.1.5) and the symmetrical retrograde of the first four bars follows. The unusual and asymmetrical meters and the slight alteration of the order of the chord the end of the phrase (14.1.7-9) from the beginning (14.1.1-3) produces the "crippled symmetry" Feldman speaks of in his essay of the same name. Never again is material VI) presented again as clearly as it is in this original statement.

7. Material VII) (15.3.2-8) alternates, *en bloc*, between the strings and the piano. Here, in material VIIa) the strings play a fixed register chord comprised of B, Db and D (pitch set=023), that is a transposition of the chord from material II). Now, the chord is presented in a more rapid fashion, either once or twice to the bar and preceded by a silent downbeat. The cello's low D recalls previous material where it suddenly dipped into its bottom register, namely, as part of the strings' free chromatic chords in material IV). Later, in material VIIb) this chord is given to the piano at exactly the same pitch levels (17.2.2).

8. Material VIIIa) presents the first moment in the entire piece where the strings are truly individuated, by playing a contrapuntal figure (20.1). The pitches of B, C, Db and D are contrapuntally overlaid in an extremely close register and accompanied by the piano playing a pedal point on the final eighth-note of each bar. Later, in material

VIIIb) the piano takes over the pitches and register of the strings, and plays an ascending chromatic figure of differing lengths (24.1.2-3).

9. In material IX) both the piano and the strings share a chord comprised of the notes Bb, B, and C (23.1.1-7). In the strings, this chord is fixed in register, recalling the opening cluster of pitches from material I) but now voiced in an open voicing, as in material II). In the piano, this chord is always played first and followed by another chord comprised of the pitches A, Bb and Eb. The longer durations of the strings, whose attacks are never co-incident with the piano, recalls the effect of distinct tempos between the strings and the piano as in material II).

10. Material X) brings the piano and the strings into a new relationship; individual strings repeat pitches from the piano in the same octave (24.2.6 9). An opening chord in the piano, comprised of the pitches E, F, F# and G is followed by a lone Ab and Bb (pitch set=012346). These notes "echo" in the strings; this is the only instance in the piece where the strings play a subordinate role, by imitating the piano.

11. Material XIa) is clearly demarcated from all other materials in the piece through the use of pizzicato in the strings (26.1.1-3). Each player plucks a double stop comprised of either a seventh or a ninth, both intervals being derived from the half steps and whole steps that have been emphasized in the primary pitch collections thus far. The six notes presented at the introduction of material

XIa), D, Eb, E, F, G and Ab (pitch set=012356) form the same collection as material X), with one note altered, and transposed down a whole step. XIb) presents the pizzicato chord homophonically and with the addition of a thirty-second note piano figure (31.1.9).

12. There is one last feature that may not have enough of an independent identity to be designated as a type of musical material, but which, nevertheless, makes its appearance prominently toward the end of the piece - rolled piano chords (24.1.5, 24.1.8, 31.1.8, et. al.) The content of these chords is not fixed, but tends to vary between pitch set=0123 and its expansion into pitch set=0134.

Based on this identification of musical materials, it is possible to account for every bar in Piano, Violin, Viola, Cello. Moreover, this analysis is useful for two reasons: 1) by comparing the individual particularities of each bar with an "archetype," one becomes aware of the richness of Feldman's compositional practice and loving attention to detail. 2) By abstracting away from the details, and tracing the layout of musical materials, one becomes aware of Feldman's large-scale, formal concerns. As I showed earlier, Feldman is able to compose a compelling musical discourse, which sustains itself for almost sixteen minutes, solely on the minuscule stuff from which materials I) and II) consist. In addition, one can trace the waxing and waning of materials over the course of the entire piece:

material XI) is first introduced almost an hour into the work!

II

The second part of this analysis will briefly look at the more general topics of timbre, harmonic progression, rhythm, and temporality in order to help clarify and articulate Feldman's compositional procedure and deeper musical concerns. Timbre, harmonic progression and rhythm shape the continuity of the musical discourse, while the question of temporality will lead towards larger and more philosophical-aesthetic reflections. These reflections can be truly developed only upon the basis of clearly laying out the different orders of musical material from which this "monolithic work" has been hewn.

One cannot help but be struck by the unusual way in which Feldman constantly revoices the string trio. A striking example of this technique is demonstrated in material II) where the strings play a fixed register voicing of the notes A, B, and C. The chord is constantly revoiced by using natural harmonics, artificial harmonics and stopped notes. If we take 2.2 through 2.3, from the "exposition" of material II), we discover 4 different ways in which this chord is voiced in merely 11 bars of music:

Bar	C	B	A
2.2.2	Vla. (natl. harm.)	Vc. (art. harm.)	Vn. (natl. harm.)
2.2.6	Vc. (art. harm.)	Vn. (stopped)	Va. (natl. harm.)
2.3.3	Vn. (stopped)	Vc. (art. harm.)	Va. (natl. harm.)
2.3.4	Vla. (natl. harm.)	Vn. (stopped)	Vc. (art. harm.)

In respect to Feldman's late works, he has drawn many parallels between his compositional ideas and his interest in Near and Middle Eastern rugs. If his compositions represent, in some manner, a translation of the scaled asymmetry of the rugs (a comparison he makes in the essay "Crippled Symmetry"), then the slight gradations in timbre produced by systematic revoicing is akin to color gradations in the rugs. Feldman, describing some of his favorite rugs, points out the slightly differentiated hues of "identical" colors that appear in these rugs. Due to the hand-dyeing process, unlike the mechanical process used for dyeing wool thread in Western industrialized countries, only small batches of thread can be dyed at one time, thus producing subtle gradations and variations within a single color. In a compositional world of "monolithic" works, hewn from the same stone, these slight gradations help to propel the larger musical discourse: a richer and richer accumulation of musical materials and relations. These timbral distinctions are not as great as the difference between two types of musical material, but they are crucial to producing a musical surface that is capable of holding interest over extremely long periods. They project attention away from the

large, formal and phenomenal orders of the piece towards the small, particularized and material dimensions.

Feldman also exploits the timbral distinctions between the strings and the piano, arguing that a C in the viola and a C in the piano part sound completely different. There are numerous examples where pitches from the strings are doubled, in the same or other octaves in the piano, and vice versa. In the analysis of the work's material we have seen some of these connections either through disposition or harmonic collection. For example, material X) has the strings imitating the piano at exactly the same pitch level. But even within this material Feldman exploits both the global timbral distinction between the piano and strings and the more subtle gradation between the violin and the viola by having the viola overlap and continue the violin's note at the same pitch level (24.2.9-24.3.1). In material IIIa) the Db, Eb, E given to the strings (7.2.9) are widely voiced while the same pitches, now in a new register, are given to the piano in the next system (7.3.5). These two moments are heard as being related, even as being identical in the sense that they are presenting the same material. But *although gesture and pitch content help us hear these two bars as identical, Feldman never gives the listener an unproblematic identity claim*; timbral differentiation and new registral placement force the recognition of difference.

Another factor in the continuity of the musical discourse is Feldman's control over large-scale harmonic

movement. Overall, Feldman's music confines itself to the cluster, and small segments of the chromatic, to create harmonic areas. In addition (at least in Piano, Violin, Viola, Cello), Feldman is interested in the development (albeit in a non-teleological manner) of an original opening set of pitches, which develop, expand, transpose, and return in a very slow and organized manner. The opening collection in the strings from material Ia), Bb, C, Db, D (pitch set=0234) seems to be the initial pitches which travel through the piece. For example, the strings' Bb, C, and Db at 1.1.1 (a subset=023 of the original set) could be seen as the same (through transposition) as the A, B, C of the strings in material II) at 2.2.2 and the Ab, Bb, B at 6.3.9. The string's constant fixed register chord acts as the audible signifier of material II), which acts as the stable counterpoint to the piano's free chromatic chords. In material IIIa) (7.2.8-9) the strings' pitches, Db, Eb, E, and Gb (pitch set=0235), comprise an expansion of the opening set=0234. Again, this set is articulated between the piano and strings in material IIIb), at 8.3.1, now transposed to D, E, F, and G. In material IV) the strings are akin the piano part of material II) in that they play a series of free chromatic chords. But placed against this is the four-note chord of the piano at 10.2.9 comprised of the pitches, F, Gb, Ab and Bb. This new pitch set=0135 is a new variant of the opening pitch set. In material V) the strings

and piano play B, Db, D and Eb, comprising the pitch set=0234, a transposed return to the original set.

The pitch content of each of the materials presented, bears a relation to the original pitch set from material I) as well as a relation to the material just previously introduced. Considering that all of these materials become juxtaposed and put into a discursive relation with one another over the long duration of the piece, the listener is given ample time to consider and *experience* the subtle distinctions of these pitch sets and their transformations. Because these materials continually reiterate these sets (and in such a clearly audible manner), the pitch sets become a palpable part of the musical discourse and not merely a subcutaneous pre-compositional method for generating notes. The gist of Feldman's developmental procedures should be clear; the transformation of the remaining musical materials, in regards to pitch sets, has already been outlined in part I and need not be further elaborated.

The third element of Feldman's musical discourse is rhythm. If we consider Feldman as composing with complexes of sound, and not with traditional motifs or even gestures, the "rhythm" of particular moments of the piece depends on the adjustment of the durations of each sound. In general, the bar lines reflect this adjustment of durations, in that Feldman conceives of each bar as a self-contained group of sounds. For example, take material V) at 12.1: both the

piano and strings play sounds that are contained within the bar, but the durations of the sounds changes depending on the meter of the bar. In the piano part we see a process of expansion, where each bar grows sequentially longer in duration, either through changing the basic durational value of each chord or by adding a silent beat in the center of the bar. The strings are conceived in a similar manner but without the directional augmentation of rhythmic values. Later in the piece, the piano part from material V) becomes more independent, appearing apart from its associated string chord, now with new rhythmic independence between right and left hands, yet still confined to the bar (compare 19.3.4 and 25.3.9 with 12.1). Another striking example of rhythmic expansion, confined to the bar, can be seen in the comparison of 2.2.5, and 2.2.8: when the 7/8 bar in 2.2.5 becomes a 5/4 bar, all values are augmented accordingly to fit the new durational space. Another example is the arpeggio figure at 6.3.7-9: here the arpeggio moves from its containment in a 7/8 bar, equally dividing the time into 4 even double dotted eighths, into a more spacious configuration of 4 dotted eighths enclosed by two half note rests and contained in two 7/ 8 bars.

If forced to generalize, Feldman utilizes two basic principles to divide bars into rhythmic units. First, bars are divided into quasi-equal parts, which are not necessarily equal in duration, but may have a certain "crippled symmetry" about them. For example: the division of

a 7/8 bar into a half-note plus a dotted quarter-note, or a dotted quarter-note plus a half-note, as in material II). Secondly, by enclosing or inserting of a silent beat into a symmetrical or "crippled" symmetrical division. For example, note the addition of a silent beat between two equal durations in material V); this produces a symmetry which is notational, but an audible lopsidedness toward the front half of the bar (12.1). Another example is at 1.1.2-4: the insertion of a silent downbeat in front of two half notes (sometimes dotted) in the string part. These techniques are used either to avoid or to emphasize co-incident attacks (homorhythms between the strings and the piano). Both effects are clearly at work in the very first system of the piece, in the contrast between material Ia) and Ib), i.e. alteration, and homorhythm.

These rhythmic transformations do not produce a change in "rhythmic profile". Feldman's rhythmic processes are wholly unlike the procedure of transforming rhythmic profiles in twelve-tone composition, where new rhythmic profiles are given to the same row to shape the formal development of the piece (for example, the opening antecedent and consequent phrase of Schoenberg's 4th String Quartet, I). Rather, the elongations and reductions of complex sound durations, within the confines of the bar, are more akin to a distortion of memory: a recollection that is less distinct than the original sense-data.

As a point of comparison, I would like to contrast Feldman's analysis of Steve Reich's Four Organs, in the article "Crippled Symmetry", with Piano, Violin, Viola, Cello. In Four Organs, a repeated chord is slowly filled-in by changing the duration of each note in the chord. Feldman describes the additive structure of the piece, then writes, "As the measures grow progressively longer, the oscillation of the recurring pitches can no longer be said to have any marked rhythmic profile" (Feldman, 136). But, this is not entirely true. Feldman has overlooked one extremely significant acoustical feature: the rhythmic profile, although extended to an extreme length, is always marked, *and I mean literally marked*, by the constant eighth note pulse of the maracas. The maracas, in Four Organs, articulate and mark a reified, mechanical time. Piano, Violin, Viola, Cello is entirely devoid of this kind of articulation, because the constant eighth-note pulse only exists in the performers' silent time-keeping, and not on the musical surface. If we are forced into the old dichotomy of clock-time versus experiential-time, Reich's additive procedures never break from the reified experience of clock time while Feldman's world exist wholly of the cusp of experiential time as it approaches reification -- becoming mechanical, repetitive and marked.

The contrast and accumulation of musical material mark the path of experiential time, yet each kind of musical material is given an identity amidst the flux by distinctive musical signifiers, which demarcate one kind of material from its neighbors. Signification enables the recognition of identical musical materials when they return, in varied manifestations, throughout the piece. This links signification to memory: without recognition and identification, the return of material is without affect to the listener. Feldman differentiates the flux, so that accommodation to the continuous sonic manifold is effected. Yet, this is what musical forms have always done, only Feldman's purpose differs from the convention goal: "Musical forms and related processes are essentially only a method of arranging material and serve no other function than to aid one's memory. What western musical forms have become is a paraphrase of memory. But memory could operate other wise as well" (Feldman, 137). And memory does: using Proust's categories, the "paraphrase of memory" is aligned with voluntary memory and the "memory operating otherwise" is aligned with involuntary memory - whose necessary precondition is forgetting, in order to remember all the fuller.

Feldman's music is involved in the dialectics of voluntary and involuntary memory. In an essay on composing Triadic Memories, Feldman writes,

"One chord might be repeated three times, another, seven or eight -- depending on how long I felt it should go on. Quite

soon into a new chord I would forget the reiterated chord before it. I then reconstructed the entire section: rearranging its earlier progression and changing the number of times a particular chord was repeated. This way of working was a conscious attempt at "formalizing" a disorientation of memory. Chords are heard repeated without any discernable pattern. In this regularity there is a suggestion that what we hear is functional and directional, but we soon realize that this is an illusion." (Feldman, 137)

This is the dialectical role of repetition: to enforce remembering by reiteration and to aid forgetting of the immediately past by asserting, and reasserting, the new. Hence, repetition, as it functions in Feldman's music, is both an aid to remembering and forgetting.

The suggestion of functional and directional activity, which soon exposes itself as illusory, is a fundamental goal of Feldman's project. Moreover, this process of suggestion and exposure can be analyzed into its component parts: 1) Raw sense-data produce a shock for the subject when it confronts an heretofore unique object; the subject must accommodate itself to the new experience. But the shock of the new soon wears off and 2) the object becomes assimilated to the subject through the interpretive and cognitive schemas of habit, which conventionalize and sublimate shock. In the schema, the old Western musical forms, with their suggestion of development and direction, lie at the level of habit. We are habituated into these "categories", much as Piaget's "genetic epistemology" has taken Kant's *a priori* categories and shown them to be an *a posteriori* product of habituation and assimilation. For Piaget, categories like causality, unity, and multiplicity are merely

conventionalized, subjective strategies for coping with the contingency of the world. In addition, this also holds true of the subject itself, dethroned from its position as a noumenal transcendental ego, beyond apperception, and placed back in the position of a constructed identity, comprised of both conscious and unconscious strata. "Habit", says Samuel Beckett, in his book on Proust (a work that Feldman was surely familiar with), "is the ballast that chains the dog to his own vomit." 3) Feldman's attempt to "formalize a disorientation of memory" is an attempt to break this ballast, to shatter the desiccated formal and conventional shells, and allow for the recovery of expression via involuntary memory. Feldman requires the suggestions derived from habit, to produce the aesthetic effect he is after: a pattern almost discoverable, shall we say *an inscrutable pattern that, at the verge of announcing its directionality and functionality exposes itself as merely material - the sub-human murmurings of flux*. We, as listeners, are involved in the process of trying to assimilate ever new sense data - to test it, to spin it round, to place it into some order that will allow the inscrutability of all material to become clarified and legible - but, at certain moments, material insistently enforces its own dogmatism. *We return the opening bar of the piece, having suddenly arrived nowhere and beginning again, but the new beginning is not the same as the old one*. The new inscrutable order produces a certain mimetic glimmer of hope: as Adorno said, "Hope is not memory

held fast but the return of what has been forgotten”
(Adorno, 120).

Piano, Violin, Viola, Cello
Materials

Ia)

Ib)

1.11-7

This musical score for section Ia) 1.11-7 consists of four staves. The top two staves are for Violin and Viola, and the bottom two are for Piano and Cello. The key signature is one flat (B-flat). The time signature changes from 2/2 to 5/4, then 3/2, 2/2, 5/4, and finally 3/2. The score includes various musical notations such as rests, notes, and dynamic markings like 'p'.

II)

2.22-9

This musical score for section II) 2.22-9 consists of four staves. The top two staves are for Violin and Viola, and the bottom two are for Piano and Cello. The key signature is one flat (B-flat). The time signature changes from 7/8 to 5/4 and 3/2. The score includes various musical notations such as rests, notes, and dynamic markings like 'p'. There are also triplet markings in the final measures of the bottom two staves.

IV)

10.2.6-10.3.7

The first system of staves (measures 10.2.6-10.3.7) consists of three staves. The top staff is in treble clef, the middle in alto clef, and the bottom in bass clef. The time signature is 5/4. The music features complex rhythmic patterns with various accidentals (flats, naturals, sharps) and dynamic markings like *pp*. The second system consists of two staves, treble and bass clef, with simpler rhythmic patterns and accidentals.

The second system of staves (measures 10.3.8-10.3.10) consists of two systems. The first system has three staves (treble, alto, bass) with complex rhythmic patterns and accidentals. The second system consists of two staves (treble, bass) with simpler rhythmic patterns and accidentals.

V)

12.1 *sul tasto*

Musical score for section V, measures 12.1-12.8. The score is written for three systems of staves. The first system consists of three staves: Treble, Bass, and Treble. The second system consists of two staves: Treble and Bass. The third system consists of two staves: Treble and Bass. The key signature is one flat (B-flat), and the time signature is 3/4. The notation includes various rhythmic values, accidentals, and dynamic markings such as *sul tasto*.

VI)

14.1

Musical score for section VI, measures 14.1-14.8. The score is written for three systems of staves. The first system consists of three staves: Treble, Bass, and Treble. The second system consists of two staves: Treble and Bass. The third system consists of two staves: Treble and Bass. The key signature is one flat (B-flat), and the time signature is 3/4. The notation includes various rhythmic values, accidentals, and dynamic markings such as *p*.

VIIa)

15.3.2-8

VIIb)

17.2.2

VIIIa)

20.1

VIIIb)

24.1.2-3

IX)

23.1.1-7

Musical score for exercise IX, measures 1-7. The score is written for four staves: Treble 1, Bass 1, Treble 2, and Bass 2. The key signature is one flat (B-flat). The time signature is 5/8. The first system contains measures 1-3, and the second system contains measures 4-7. The notation includes various rhythmic values, accidentals, and articulation marks.

X)

24.2.6-9

Musical score for exercise X, measures 6-9. The score is written for four staves: Treble 1, Bass 1, Treble 2, and Bass 2. The key signature is one flat (B-flat). The time signature is 2/2. The first system contains measures 6-7, and the second system contains measures 8-9. The notation includes various rhythmic values, accidentals, and articulation marks.

XIa)

26.1.1-3

XIb)

31.1.9

Musical score for XIa and XIb. XIa (measures 26.1.1-3) is in 3/8 time, featuring pizzicato (pizz.) markings and a triplet of eighth notes. XIb (measure 31.1.9) is in 3/16 time, also featuring pizzicato markings. The score includes three staves for each section, with the bottom two staves showing a transition from 3/8 to 3/16 time.

Rolled Chords

24.1.5

24.1.8

31.1.8

Musical score for Rolled Chords. The top section shows three empty staves (treble, alto, and bass clefs) for measures 24.1.5, 24.1.8, and 31.1.8. The bottom section shows two staves with rolled chords, indicated by vertical dashed lines and notes with stems, for the same measures.

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