

Harmonic and Formal Coherence in Morton Feldman's Late Music

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Abstract:

Initially Morton Feldman's later music, i.e., those works dating from approximately 1975 until his death in 1987, can be challenging to comprehend. For instance, the large amount of seemingly undifferentiated aural information, played at a soft dynamic and heard for an extended period of time, can leave a listener with the notion that this music "sounds the same." Unfortunately, turning to Feldman himself for assistance about how to understand these expansive compositions is of limited value, as his narratives are often at odds to understand their formal design and pitch structure. In this paper, by drawing from sketch materials housed in the Paul Sacher Stiftung, I elucidate that Feldman's compositions contain a more refined degree of pre-compositional planning than is often acknowledged in the literature. Further, by using the 1981 piano solo *Triadic Memories* as the basis of my discussion, I propose that by correlating portions of the extant sketches with a published score, it is possible to identify a comprehensive harmonic and formal organisation to these large-scale compositions.

On first impression, Morton Feldman's later music, i.e., those works dating from approximately 1975 until his death in 1987, can be challenging to comprehend. For instance, many of these works are long in duration and slow in tempo; they contain a dynamic level that rarely strays above triple piano; the harmonies employed are constructed using a language most would categorize as atonal; and the presentation of these chords include numerous exact repetitions as well as repetitions with many subtle variants. Put another way, the large amount of seemingly undifferentiated aural information heard for an extended period of time can leave a listener with the notion that this music "sounds the same." To appreciate some of the challenges at hand let us consider passages from two different works. The first is the opening page from the 1983 String Quartet no. 2. Here, the identical C, C-sharp, D, D-sharp tetrachord is repeated no less than thirty-six times. And while each instrument plays the same pitch in the identical register for an equivalent duration, every statement of this harmony contains a change in either articulation or dynamic level by each instrument. Said differently, these chordal repetitions are at once both identical and completely different. A comparable scenario appears during the first seventy-eight measures of the 1981 piano solo composition entitled *Triadic Memories*. Here, the hexachord C, C-sharp, D, G, G-sharp, A is realized in a wide variety of registers and durations; however, the dynamic level and articulation are identical throughout the passage.

What are we to make of these two strikingly different pieces? Clearly there is no immediate discernable pattern to either passage, or even the sense that some compositional process underlies these two works. And while Feldman is no doubt after the beautiful immediacy of each sonic event, given the vast length of these late works (the String Quartet lasts anywhere from four to six hours, depending upon the number of repeats taken; *Triadic Memories* ranges in duration from seventy-five to one hundred minutes, again depending upon the number of repeats), one must ask a crucial question: Is there a rational pattern of organisation to these pieces?

Unfortunately, turning to Feldman himself for assistance about how to understand these expansive compositions is of limited value. As has been well documented, Feldman had a suspicion to analysis; his essays and lectures are suffused with comments about his distrust of compositional systems in general.¹ Instead Feldman's narratives often address such topics as the extensive repetition one finds in this music, or about how Turkish carpets and the large canvases from painters such as Philip Guston and Mark Rothko influenced these pieces. Further, the discussion about pitch in Feldman's writings or lectures is frequently minimized.

In short, Feldman's remarks are often at odds to understand the formal design and pitch structure in these compositions.

Clearly, Feldman preferred to describe the compositional act as spontaneous, one unfettered by any enforced process. Yet is Feldman's music as random as he made it out to be? Or were Feldman's remarks deliberately misleading as a means to perpetuate a myth that he felt was worth maintaining? In this paper, by drawing from sketch materials housed in the Paul Sacher Stiftung, I elucidate that Feldman's compositions contain a more refined degree of pre-compositional planning than is often acknowledged in the literature.² Further, by using the 1981 piano solo *Triadic Memories* as the basis of my discussion, I propose that by correlating portions of the extant sketches with a published score, it is possible to identify a comprehensive harmonic and formal organisation to these large-scale compositions.

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In some ways, Feldman's sketches are frustrating, not the least of which is their rather incomplete state. For instance, in pieces such as his 1977 opera *Neither* or the 1975 Piano and Orchestra, there is an abundance of sketches and one can grasp a reasonably clear idea of the compositional thinking that went into these works. On the other side of the continuum are pieces such as the solo piano *Palais de Mari* (1986) or the 1971 *Rothko's Chapel*, which contain only the barest of extant sketch material. In other words, there are many gaps in the sketches, and at times even an educated guess as to what the compositional process may have been for these works is, at best, highly speculative.

Sitting between these two extremes are compositions that may not contain exhaustive details about the origins of a work's pitch or rhythmic structure, but the number of charts, grids and melodic and harmonic detail allows the analyst to make reasonably informed assumptions about the small- or local-level organisation. Yet despite such an abundance of sketch materials for such compositions, I am unaware of any one piece that contains an overarching, large-scale graph or chart that would demonstrate Feldman's pre-compositional plan of a piece on a global level. I shall return later to the analytical challenges one faces with the absence of such crucial material.

As a point of departure, let us examine three examples from the *Triadic Memories* sketches; they are representative of the types of sketch material one finds, with respect to the details of rhythm and pitch. Figure 1 illustrates a sketch solely correlated to rhythm. There are five rows, with nine measures per row.³ Further, there is a series of changing rest values in each row that, for the most part, alternate with measures marked "x." Measures 779-823 from the published score link with this sketch. Specifically, the five rows in the sketch unfold in chronological order: row 1 forms the basis of the rhythmic profile in mm. 779-787; row 2 appears in mm. 788-796; row 3 is used in mm. 797-805; row 4 appears in mm. 806-814; and row 5 is used for mm. 815-823. (There is a slight reordering of the order positions in row 5. Specifically, m. 815 begins with order position 3; and order positions 1 and 2 are employed in mm. 821 and 822. Interestingly, the reordering engenders a sense of rhythmic symmetry to these final nine measures.) In the interest of space, only mm. 797-823—i.e., the measures which correspond with rows three, four and five from the sketch appear in Figure 2.

Measures 779-823 are of importance, as they represent the last measures before a significant change takes place in the score—namely, that there is a continuously changing time signature in virtually every measure for the remainder of the work (until mm. 778, the time signature had remained unchanged at three/eight). These measures also illustrate a passage where Feldman continuously varies the same C, C-sharp, D, E-flat tetrachord (along with the D or F grace note); comparing the passage with the sketch, we see that the measures marked "X" are the various instances of the C, C-sharp, D, E-flat tetrachord. Since the meter remained

unchanged at three/eight until m. 779, the rationale for the detailed arrangement of rests comes to light. This is the only moment where non-three/eight rhythmic settings appear in the score without the use of a time signature, and thus serves as a nice transition to the change in rhythmic character beginning in m. 824.

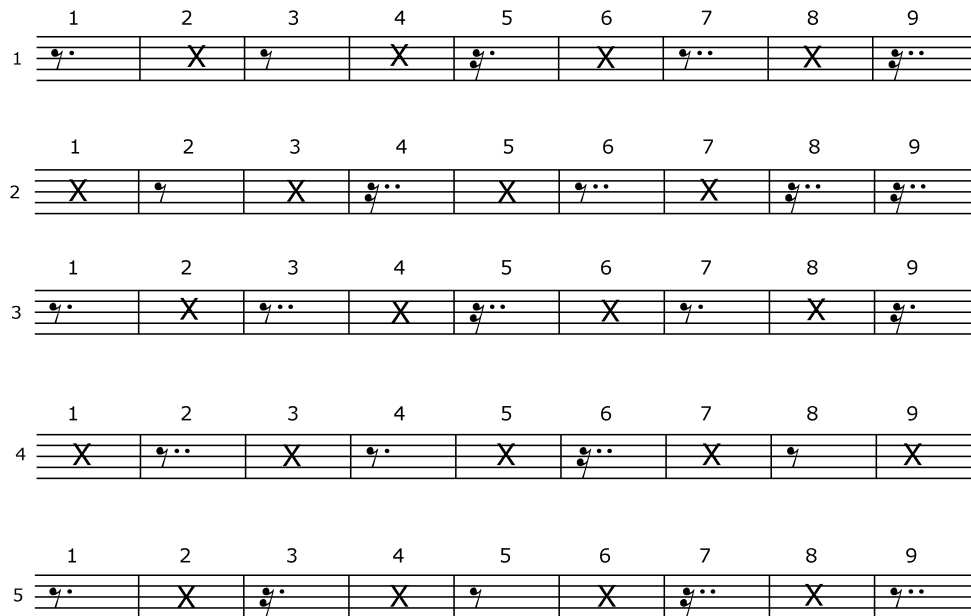


Figure 1. Feldman, sketch material from *Triadic Memories*, microfilm no. 0459, p. 385. Permission to reproduce the sketch into computer notation format granted by the Paul Sacher Stiftung, copyright holder of the Morton Feldman archive.

Figure 3 illustrates a sketch that focuses upon pitch organisation. The first point of interest is the arpeggiated figure of the D-sharp, E, G-flat, A-flat harmony (in pitch-class set theory parlance, an [0135] tetrachord⁴). There are five numbers below the sketch, corresponding with the pitch E of each repetition of the tetrachord. A second portion of the sketch page contains the three measures. Noteworthy here are the three letters A, B, and C associated with the arpeggiations beginning on A, A-flat and E-flat, respectively. To the left of these three measures is a series of measures with letters and rests; note the quasi symmetry to the ordering of the letters. Finally, there is a series of measures, once again with four-note arpeggiations ascending chromatically from E to B. The second, fifth and sixth measures, beginning on F, A-flat and A, respectively, are circled. The chords beginning on B-flat and B are crossed out.

Row 3

Row 4

Row 5

Figure 2. Feldman, *Triadic Memories*, mm. 797-827. © 1981 Universal Edition, Ltd, London. Used by permission of European American Distributors LLC, US and Canadian agent for Universal Editions Ltd, London.

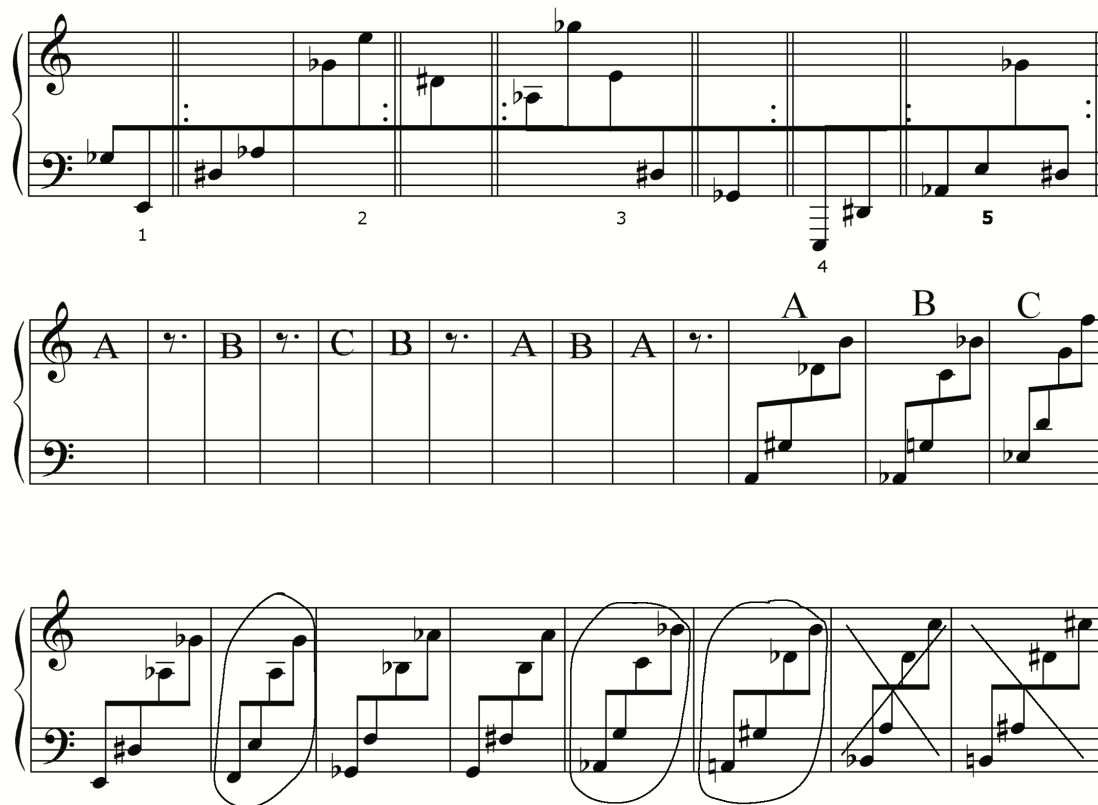


Figure 3. Feldman, sketch material from *Triadic Memories*, microfilm no. 0459, p. 387. Permission to reproduce the sketch into computer notation format granted by the Paul Sacher Stiftung, copyright holder of the Morton Feldman archive.

Figure 4 contains mm. 714-757 from the published score of *Triadic Memories*. Measures 714-721 are a compositional realization of the first sketch described; m. 723 contains the tetrachord in a permuted format (with a measure of rest surrounding this one measure); and mm. 725-732 repeat mm. 714-721, albeit in a different register. Finally, mm. 734 and 735 are two repetitions of m. 723.

Measures 737-748 correspond with the second portion of this sketch. The letters inserted into the score correspond with those in the sketch.

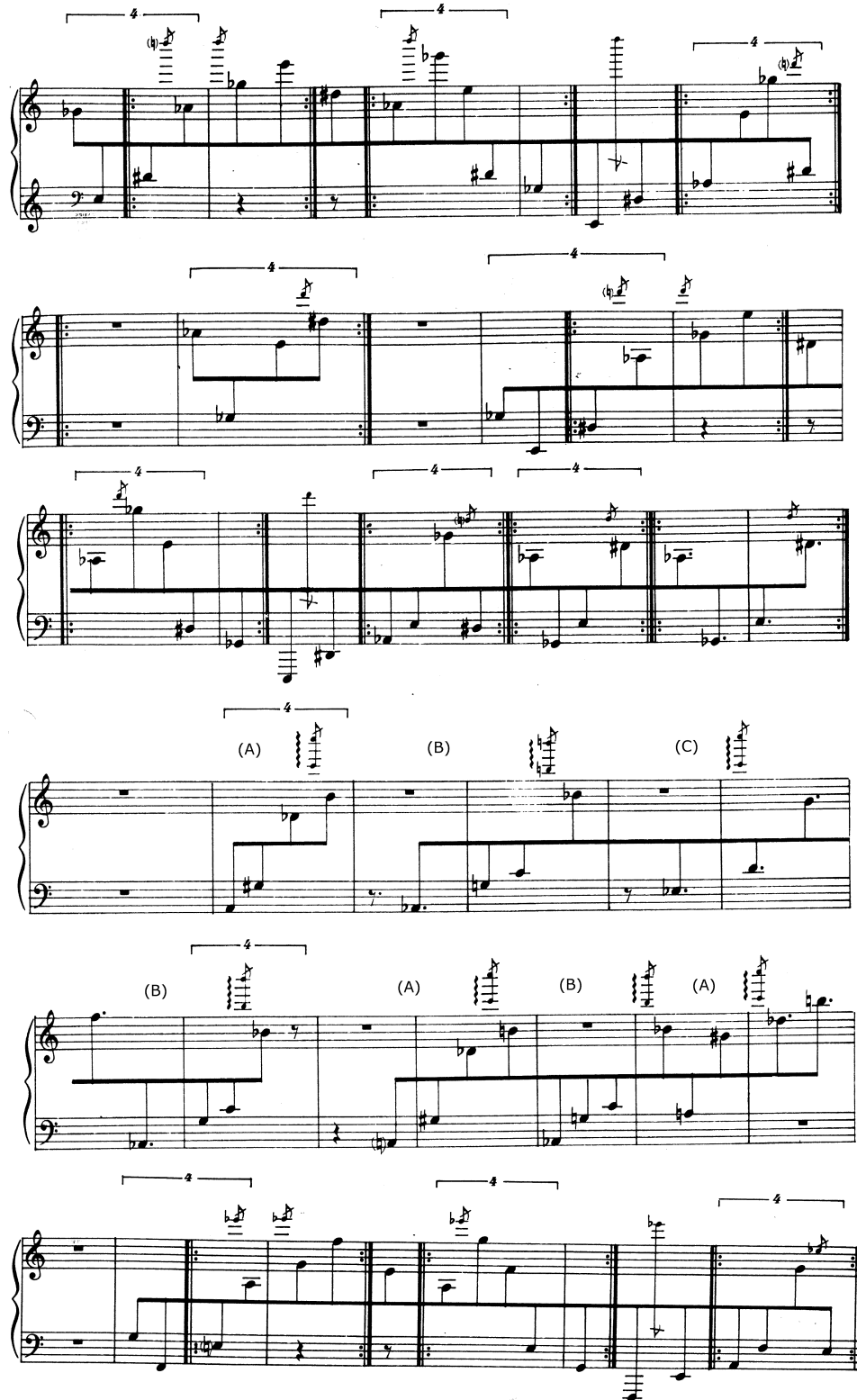
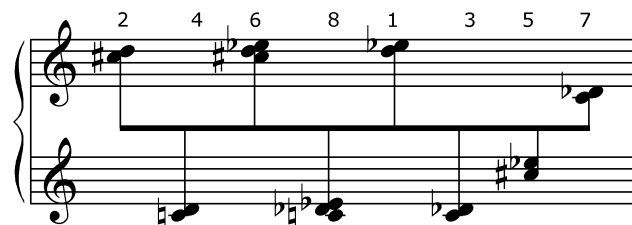


Figure 4. Feldman, *Triadic Memories*, mm. 714-757. © 1981 Universal Edition, Ltd, London. Used by permission of European American Distributors LLC, US and Canadian agent for Universal Editions Ltd, London.

Finally, mm. 750-757 is a transposed version of the earlier mm. 714-721. The specific transposition contains the tetrachord E, F, G, A; this tetrachord is one of the three circled in the third portion of the sketch from Figure 3. The rationale for which chords are circled in the lower system of Figure 3 can now be ascertained: it is these three transpositions of the [0135] tetrachord (along with the tetrachord beginning on E) that Feldman chose to realize in this passage of the score.

Figure 5 is another page from the *Triadic Memories* sketches. In essence, there are eight dyads or trichords that explore various pitches within the range of C to E-flat (as discussed below, the C, C-sharp, D, E-flat tetrachord is of major importance in the work). Immediately below this musical excerpt is a four-row chart that contains different arrangements of the eight numbers representing the various combinations of chromatic pitches. Row B is a numerical representation of the musical excerpt; row C is a numerical sequence of the eight pitch combinations. Rows A and D contain relatively straightforward permutations of the pitches.

Figure 6 contains mm. 457-464 from the score; it represents one of the many realizations of the pitch material from the sketch. As shown, mm. 457-462 correspond with rows A, C and B, successively. The final two measures are represented by rows A and B combined, although the pitch combinations are slightly reordered.



D	5	7	1	3	4	2	8	6
A	3	1	5	7	8	6	2	4
B	2	4	6	8	1	3	5	7
C	1	2	3	4	5	6	7	8

Figure 5. Feldman, sketch material from *Triadic Memories*, microfilm no. 0459, p. 385. Permission to reproduce the sketch into computer notation format granted by the Paul Sacher Stiftung, copyright holder of the Morton Feldman archive.

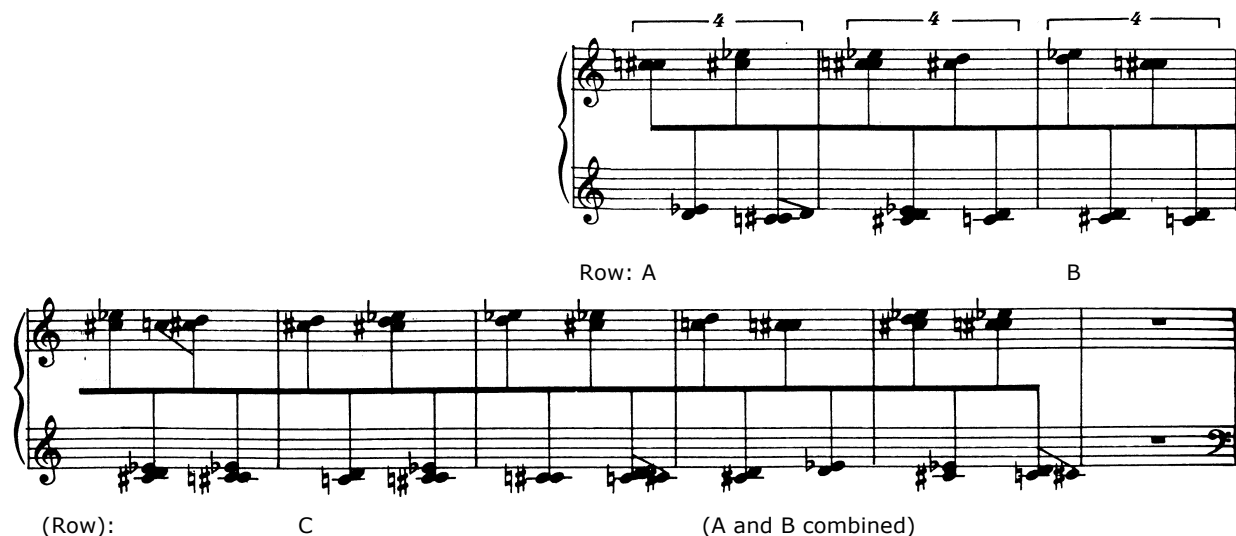


Figure 6. Feldman, *Triadic Memories*, mm. 457-464. © 1981 Universal Edition, Ltd, London. Used by permission of European American Distributors LLC, US and Canadian agent for Universal Editions Ltd, London.

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Clearly one of the more challenging aspects of Feldman's later music is to comprehend the pitch and rhythmic structure beyond the immediacy of seemingly endless beautiful sounds.⁵ While Feldman's extant sketches contain literally multitudes of the types of fragments just discussed, there is a notable absence of any large-scale harmonic, rhythmic or formal plan for any late piece. What this seems to suggest is that Feldman's compositional process was to intuitively conceptualize the large-scale structure of a work and generate the details of the lower-level pitch and rhythmic relationships in the sketches. For the analyst, then, any large-scale plan must be generated via detective work—i.e., by bringing together sketch fragments and correlating them with a careful study of the published score. Once the various components of the score have been assembled together, one can then discern the overarching harmonic logic to the ordering of these various elements.

As noted at the outset of this paper, it is not unusual to find passages in Feldman's later works that contain the pervasive use of a single harmony or circumscribed number of chords, all of which are cast in slightly different rhythmic settings and/or pitch-space realizations. However, there are also numerous passages in the late works that contain a change of harmony in each measure. Needless to say, to look for chord to chord relationships, to say nothing of more longer-ranged associations, within such a myriad of both stasis and change can be frustrating. Even so, I argue that one can perceive coherence between these chords, largely through pitch salience. Yet since Feldman's music tends to be consistently quiet and uniformly contains an atonal pitch language, salience is not generated by such traditional means as loud pitches or a tonal focus in a particular register.⁶ Instead, pitch salience is defined more generally—namely, with the invariance of particular pitch classes between measures, regardless of whether a specific measure is immediately repeated or is included within a passage of several different harmonies. In these late works, the primary material of study is exactly the finely worked out materials of the sketches—i.e., explicit dyads and pitch-class sets. Importantly, we are describing the salience of pitch classes—i.e., a family of particular pitches, regardless of their pitch-space realization or orchestration—rather than relationships between specific pitches. By generalizing pitch to this level, we eliminate one challenging aspect of Feldman's music: since exact repetition (i.e., individual measures with repeat bars) or near exact repetition (two successive measures with either identical pitch-class material, but displaced in a different pitch-space realization, or containing slightly different pitch-class material) is a characteristic feature of his late compositions, we are not privileging passages with precisely repetitive harmonies as having greater salience over passages with numerous chordal changes, or vice versa.

Despite the wide variety of harmony changes, as well as the seemingly inexhaustible number of rhythmic and a pitch-space realization of these chords, texture is a parameter in these late works that does remain reasonably consistent for extended periods of time. Put another way, both harmonic repetitions as well as extensive changes of harmony appear within enlarged passages of rather similar texture. One means, then, to comprehend these musical edifices is to use significant textural changes to designate structural demarcation points in a composition. Once such pillars are identified, we can then generate dyad and pitch-class set correlations, both within a single texture or between different textural regions. Through such a *modus operandi*, we do not have to myopically focus upon every chord-to-chord relationship throughout the piece. Rather, by studying harmony on a more general level, small harmonic variations that take place between chords within a particular texture can be viewed as a colouristic effect. Alternatively, harmonic changes of a more substantive nature or for a more expansive period of time within an individual texture can be determined to represent an interpolation. It is typical in Feldman's late works, however, that the harmonic materials of such interpolations contain direct associations with material coming from a prior section in the piece or will appear in a subsequent section—once again, where texture is the means by which form is defined.

As an illustration to this point, consider the format chart of *Triadic Memories*, seen in Figure 7; significant textural change, in correspondence with important transformation to the primary or salient harmony, represents the primary criterion by which the design is generated. Space precludes a comprehensive examination of the various parts and subsections labeled in this chart. Germane to the present discussion, however, is Figure 8, a summary of the evolutionary pathway of the primary harmonies from the first four parts—or stated differently, the most frequently occurring harmonies in these portions of the work. In essence, the [01] dyad (C-sharp/D) and [0123] tetrachord (G, G-sharp, A, B-flat) of part one slowly changes into the scenario in part three, where the [01] dyad is now G-sharp/A and the [0123] tetrachord is C, C-sharp, D, E-flat. Viewed another way, the G/B-flat dyad of part one becomes the C/E-flat dyad of part three. The transition acts as a go-between via the [01] dyad (F/G-flat) of part two, an interval that mediates the C-sharp/D and G-sharp/A dyads. In part four, by far the longest portion of the work, the importance of the G-sharp/A dyad is minimized, and the C, C-sharp, D, E-flat harmony becomes the primary tetrachord during the latter half of the composition. The dominance of this latter harmony is the means by which the rondo design outlined in Figure 9 is generated; specifically, the refrain refers to some pitch-space realization of the C, C-sharp, D, E-flat tetrachord, while each episode uses other types of pitch-class sets.

Part I (mm. 1-78)

- Section 1 (mm. 1-18)
- Section 2 (mm. 19-34)
- Section 3 (mm. 35-50)
- Section 4 (mm. 51-58)
- Section 5 (mm. 59-68)
- Section 6 (mm. 69-78)

Transition (mm. 79-104)

Part II (mm. 105-250)

- Section 7 (mm. 105-132)
- Transition (133-140)
- Section 8 (mm. 141-187)
- Transition (188-194)
- Section 9 (mm. 195-250)

Part III (mm. 251-324)

Part IV (mm. 325-822)

- Rondo design

Part V (mm. 824-958)

Interpolation (mm. 959-984)

Part VI (Coda) (mm. 985-1138)

Figure 7. Formal design of Feldman, *Triadic Memories*

Part I	Part II (transition)	Part III	Part IV
C#,D / G,G#,A,Bb [01] / [0123]	emphasis upon F/Gb dyad [01]	C,C#,D,Eb / G#,A [0123] / [01]	C,C#,D,Eb [0123]

Figure 8. Summary of harmonic movement between Parts I and IV of Feldman, *Triadic Memories*

R	325-375
E1	376-384 (C#,Eb,E,F)
R	385-428
Interpolation I	430-439
E2	440-455 (C#,D,A#,B)
R	456-465
Interpolation II	466-473
R	474-487
E3 (=E1)	488-500 (C#,Eb,E,F)
R	501-519
E4	520-555
R	556-571
R**	572-589 (includes an F grace note with core tetrachord)
E5	590-665
Interpolation III (=II)	666-674
R	675-693
E6	694-775
R	776-788
R**	789-822 (includes an F grace note with core tetrachord)

NB: R = Refrain (refers to various presentations of the C,C#,D,Eb tetrachord); E = Episode

Figure 9. Breakdown of rondo design in mm. 325-822 of Feldman, *Triadic Memories*

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The premise I have made in this paper is that, contrary to Feldman's deliberate obfuscation of the matter, the evidence suggests that there is both harmonic and rhythmic coherence in Feldman's later works. For instance, the sketches identify detailed rhythmic and motivic cells, which are manipulated in a variety of ways. Permutational grids and charts also frequently appear in these sketches, strongly implying that there is a rational means by which this music is organized, at least on a small or local level. Further, despite the absence of large-scale designs in Feldman's sketches, by correlating the various cells in these sketches with the final score, we are able to piece together a comprehensive logic to a composition. For instance, the sketches appearing in figures 1 and 5 correspond with arguably the most vital pitch-class set of *Triadic Memories*, the [0123] tetrachord C, C-sharp, D, E-flat; the two passages of figures 2 and 6 represent two realizations of this tetrachord that engender the refrain of the rondo design constituting part four of the work, outlined in figure 9. By contrast, the sketch of figure 3 presents the motivic material for one of the episodes from the rondo (specifically, episode 6). Through this process of assembling these various sketches together, we observe that the overarching harmonic strategy in *Triadic Memories* is a systematic, almost imperceptible series of changes to a circumscribed number of pitch-class sets. Clearly what is different about pieces such as *Triadic Memories* is that these pitch relationships are not immediate and overt; rather, they unfold at glacial speed—thus necessitating the extraordinary dimensions that these pieces must undertake.

Despite such large-scale harmonic lucidity, Feldman went out of his way to conceal to this coherence, largely by two means. First, the vast lengths of these works naturally make these relationships tenuous to recognize. Second, the logic of these harmonic relationships is also made elusive by consistently focusing the listener's attention to the immediate attractiveness of an individual sonority. I would propose that one influence upon these novel features of Feldman's music can be found with the contemporary painters with whom he had shared so many ideas over his career. For instance, by his own accord, Feldman often identified the state of immobility in Mark Rothko's huge paintings as something he himself sought for in his own music. Along with his large canvases, Rothko demanded that viewers stand in close

proximity to them, thereby preventing one from being able to survey the paintings, an assessment that hinders a direct experience of them. This interruption of an overview let the viewer *be in the painting*—thus stopping time, a total immersion in the present. By averting pitch relationships in a piece such as *Triadic Memories* to such an extreme degree and casting this music within an extended time period, his challenge is similar in intent to Rothko but much more profound in outcome: by compelling the listener to lose his/her sense of time by always being “present” within a work, Feldman forces us to re-evaluate fundamental precepts of time, memory, form and ultimately, what it means to experience music.

¹ One celebrated essay on this theme is “Boola Boola,” contained in B.H. Friedman, ed., *Give My Regards to Eighth Street: Collected Writings of Morton Feldman* (Cambridge: Exact Change, 2000), 45-49. For other writings by Feldman, see Chris Villars, ed., *Morton Feldman Says: Selected Interviews and Lectures 1964-1987* (London: Hyphen Press, 2006), and Raoul Mörchen, ed., *Words on Music. Morton Feldman in Middelburg 1985-1987: Lectures and Conversations* (Cologne: Edition MusikTexte, 2008).

² Apart from some miscellaneous undated manuscript fragments held in the library at the State University of New York at Buffalo, the institution at which Feldman taught composition from 1972 until 1987, all of Feldman’s manuscripts are housed at the Paul Sacher Stiftung in Basel, Switzerland. A listing of the compositions for which extant sketches exist is found in the appendix of Sebastian Claren, *Neither. Die Musik Morton Feldmans* (Hofheim: Wolke Verlag, 2000).

³ As an aside, units of nine measures of rhythmic values or pitch material are a frequent occurrence in the sketches. This number also translates into the autograph manuscript: there is a large number of scores in which the layout contains nine measures per system.

⁴ [0135] refers to the prime form of this harmony. For a detailed discussion of prime forms, see Joseph Straus, *Introduction to Post-Tonal Theory*, third edition (Upper Saddle River: Prentice Hall, Inc., 2004).

⁵ Dora Hanninen provides a valuable summary of the literature addressing this analytical challenge in “Feldman, Analysis, Experience,” *Twentieth-Century Music* 1/2 (September 2004), 225-252.

⁶ For a discussion about the role of salience in atonal music analysis, see Michiel Schuijjer, *Analyzing Atonal Music: Pitch-Class Set Theory and Its Contexts* (Rochester: University of Rochester Press, 2008). Important contributions to the concept of tonal centrality in Bartók’s and Stravinsky’s music are, respectively, Paul Wilson, *The Music of Béla Bartók* (New Haven: Yale University Press, 1992) and Joseph Straus, “Stravinsky’s Tonal Axis,” *Journal of Music Theory*, 26/2 (Autumn, 1982), 261-290.