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Coptic Symmetry and Conceptual Continuation in Morton Feldman's for John Cage

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COPTIC SYMMETRY AND CONCEPTUAL CONTINUATION IN MORTON FELDMAN’S
FOR JOHN CAGE

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ABSTRACT

In 1982, Feldman composed his birthday present for a seventy-year-old John Cage, aptly titled *For John Cage*. The piece is written for violin and piano, and is characteristic of the style found in most of Feldman’s works from the 1970's until his death in 1987. That is, the piece is played at a *piano* dynamic or quieter for the majority of its lengthy duration; very few of his later pieces clock in at under *For John Cage*’s seventy minutes. Also characteristic is the gradual and slight variation of musical figures (the components of larger, more complex patterns) known as “coptic” symmetry.

As in his immediately prior composition *Triadic Memories*, Feldman seems to challenge the listener of *For John Cage* to retain the memory of a musical statement through subsequent alterations and interruptions of the statement. I will refer to the mental retention of these musical statements, despite said challenges, as ‘conceptual continuation’. This concept, therefore, involves the presentation of material which is subsequently altered, usually in the smallest of details, and presented in varying permutations, similar to the variation or ‘imperfection’ of pattern found in the Coptic rugs Feldman admired around the time this piece was written. Coupled with this are the ‘challenges’ introduced by Feldman which threaten the memory of the original material and usually involve the material being interrupted, either by silence or new material.

The first chapter of the present study will address the issue of prolongation in post-tonal music, followed by a description of ‘conceptual continuation’. The second chapter will then move on to discuss Feldman’s views on, and use of, symmetry as related to the patterns found in the hand-woven Eastern rugs to which he became exposed in the 1970’s. Symmetrical issues concerning the music of Webern and Xenakis will also be invoked as a point of comparison. The third chapter will then consider the use of conceptual continuation and ‘Coptic’ symmetry in *For John Cage*.
CHAPTER ONE

INTRODUCTION

In 1982, Feldman composed his birthday present for a seventy-year-old John Cage, aptly titled *For John Cage*. The piece is written for violin and piano, and is characteristic of the style found in most of Feldman’s works from the 1970's until his death in 1987. That is, the piece is played at a *piano* dynamic or quieter for the majority of its lengthy duration (very few of his later pieces clock in at under *For John Cage’s* seventy minutes). Also characteristic is the gradual and slight alteration of musical figures that are the components of larger, more complex patterns that effect “coptic” symmetry.¹

As in his immediately prior composition *Triadic Memories*, Feldman seems to challenge the listener of *For John Cage* to retain the memory of a musical statement through subsequent alterations and interruptions of the statement. I will refer to the mental retention of these musical statements, despite said challenges, as “conceptual continuation”. This concept, therefore, involves the presentation of material which is subsequently altered, usually in the smallest of details, and presented in varying permutations, similar to the variation or “imperfection” of pattern found in the Coptic rugs Feldman admired around the time this piece was written. Coupled with this are the “challenges” introduced by Feldman which threaten the memory of the original material and usually involve the material being interrupted, either by

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¹This type of symmetry, to be discussed in detail in Chapter Two, was also referred to by Feldman as “crippled” symmetry. That is, an imperfect symmetry born of patterns, which are not quite repeated exactly, but correspond mostly in size, form and arrangement about an axis. The word “Coptic” refers to a group of people, known as the “Copts,” in Egypt, whose hand-woven rugs were among those that Feldman admired and attempted to recreate in his later compositions. This study will therefore use the word “coptic” to describe imperfection in repetition and symmetry found in Feldman’s work as related to the inspirational rugs.
silence or new material.

The first chapter of the present study addresses the issue of prolongation in post-tonal music in an attempt to clarify its relation to conceptual continuation. A survey of the theoretical literature to be found on the music of Feldman will point to the importance of pattern (and the coptic alterations thereof), and the coptic symmetry born of these patterns in his music. Literature regarding symmetry as a compositional device in the music of Webern and Xenakis will also be invoked as a point of comparison, as theoretical studies of Feldman’s music to date have not included a detailed discussion of coptic symmetry. Therefore, a review of the consideration of imperfect symmetry in other post-tonal composers’ work may prove helpful, and a review of two articles on symmetry in Anton Webern’s music by Kathryn Bailey and Robert Morris, as well as two articles on symmetry in the music of Iannis Xenakis by Jan Vriend and Evan Jones will be included. The second chapter discusses Feldman’s views on, and use of, symmetry and alteration as related to the patterns found in the hand-woven Asian and Middle Eastern rugs with which he became familiar in the 1970's. This is followed by a discussion of coptic symmetry and alteration as found in his music, and then a description of the stages involved in conceptual continuation. The third chapter posits the use of conceptual continuation and coptic symmetry and alteration in For John Cage.

CONCEPTUAL CONTINUATION OR PROLONGATION?

Necessary to a discussion of conceptual continuation is a consideration of how it relates to the concept of prolongation, as the two may appear to be similar concepts, or even as the same concept. To this end, a few definitions are required for proper clarification. Prolongation in music involves the mental or metaphorical retention of musical elements over time, and their embellishment. This, in turn, implies the existence of deeper levels (i.e., deeper than the surface of the music) in a piece that exhibits prolongation. A Schenkerian analysis, for example, would at deeper levels exclude some surface events in favor of showing the “essential” material that is being prolonged throughout the portion of music under examination. Conceptual continuation, however, as an analytical tool does not attempt to identify such background material nor its
development. This concept deals only with the extension of surface material over time. Examining a portion of music that employs conceptual continuation therefore results in an analysis that remains at the surface level, positing a continuity or connection between earlier and later appearances of material, but does not look to distill away certain material in favor of other material. The above definitions point to a view of conceptual continuation as distinct from prolongation, despite the fact that both deal with material that is somehow extended over a span of time. In order to clarify the relationship between prolongation and conceptual continuation to its fullest, a review of the literature on the issue of prolongation in non-tonal music is included below, after which certain conclusions will be drawn.

PROLONGATION IN POST-TONAL MUSIC

There has been much theoretical debate about the underlying hierarchical structure of post-tonal music. James Baker’s 1983 essay surveys the literature regarding the applicability of Schenkerian analysis to post-tonal music, and divides the authors examined into two groups. The first, which he calls the “strict constructionists,” is exemplified by the writings of Ernst Oster and Adele Katz, who consider invalid any attempts to show hierarchical structure or prolongations in pieces that deviate from tonal structural norms. Baker writes that, for Oster, “any modification of...Schenkerian principles...necessary in order to extend them to analysis of post-tonal music would break open the closed system...rendering the analysis meaningless.” Likewise, Katz believes that, because the new music defined by non-tonal systems did not grow out of tonal techniques, a new system of analysis is necessitated.

A second group of theorists, including Felix Salzer, Roy Travis, and Robert Morgan, is more liberal in their belief that prolongation and structural levels are possible in the absence of tonality. The writings of Salzer, Travis and Morgan each claims that prolongation of a dissonant sonority is possible, but each fails to describe the structural levels needed to show prolongation. Nor do they show the difference between relative consonance and dissonance in post-tonal

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pieces. Salzer, for instance, points out that “examples by Copland and Stravinsky...made it clear that polychords...have enhanced [tonalities] potentialities to a degree which today cannot yet be correctly be evaluated.” It would seem that, at least by 1952, Salzer was not yet ready to approach these issues systematically, leaving his readers with an intriguing question about things to come:

“Will music continue to express itself in the structural language of tonality revitalized by the new aspects of tonal expression which have been developed by composers as different as Hindemith, Bartók and Stravinsky, or will the twelve-tone system become the musical art’s language of the future?”

Travis explains the musical details of Schoenberg and Webern “as elaborations on various levels,” providing graphs for his discussion. As far as providing a methodology for recognizing these elaborations, Travis describes the nature of melodic progression specifically for Webern’s op. 27. Morgan offers examples of contextually established “tonics”, whether triadic (as in the augmented triad he identifies as tonic in Liszt’s *Faust Symphony*) or non-triadic (the whole-tone scale he identifies as the “fundamental sonority” in Debussy’s “Voiles”), but again offers no methodology for his assertions. For his own part, Baker finds those theories that acknowledge the possibility of dissonant prolongations are arbitrarily based. He asserts that prolongations are necessarily effected by “operations” of varying structural weight, which need to be established by a closed system of such operations. This sort of closed system is necessary, he writes, to be able to argue the existence of a multi-leveled structure, and that “to date, no closed system has been disclosed for any corpus of post-tonal music.”

Joseph Straus states that, in order to do proper justice to the “middleground” of post-

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6Baker, “Schenkerian Analysis...”
tonal music, the analyst must conceive of it in associational rather than prolongational terms. He postulates four conditions for prolongation derived from a tonal context, and then states that post-tonal music, because it does not fulfill these four conditions, cannot achieve prolongation. The result is the necessity to speak of post-tonal middleground structure in terms of surface event associations. As Straus writes, such middleground structures are “often constructed to replicate the contextual structures of the surface.”

Straus argues that a distinction between consonance and dissonance is a necessary condition for prolongation, and that the distinction between consonance and dissonance defines prolongational relationships. Straus also criticizes previous attempts to analyze post-tonal music through the prolongational eyes of Roy Travis and Felix Salzer, via the application of his four conditions to the music. Straus holds that to be able to discuss the middleground structure of post-tonal music in justifiable terms, the analyst must use a model of voice leading based on association rather than prolongation:

“Given three musical events X Y and Z, an associational model is content...to assert some kind of connection between X and Z without commenting...about Y. Assertions of this type are relatively easy to justify and provide the only reliable basis for describing post-tonal middlegrounds. Musical tones separated in time may be associated by a variety of contextual means...Associations of this kind draw together elements separated in time and create coherence at the middleground.”

Straus uses this logic to show how large spans of the second movement of Webern’s *Concerto for Nine Instruments* are organized in ways directly linked to the motivic surface of the

7Condition #1, “the consonance-dissonance condition,” requires a consistent, pitch-defined basis for determining relative structural weight; #2, “the scale-degree condition,” requires a consistent hierarchy of consonant harmonies; #3, “the embellishment condition,” requires a consistent set of relationships between tones of lesser and greater structural weight; #4, “the harmony/voice leading condition,” requires a clear distinction between the vertical and horizontal dimensions.


9Ibid.
A decade later, Steve Larson challenges the basis of Straus’s assertion by arguing that the conditions for prolongation given by Straus are invalid and do not represent a listener’s “experience” of the music. Contrary to Straus’s position, Larson states that prolongation is a necessary condition for distinguishing between consonance and dissonance, that one cannot tell what is consonant, or “stable” as Larson prefers to say, until one can say what is being prolonged. To this end, Larson defines certain “musical forces” which affect the “expressive meaning”, and therefore the prolongation, of music. His theory advocates the argument that “while different listeners may hear different levels of structure in different pieces in different ways at different times, this changes their “structural hearing”, not the nature of prolongation.”10

At the end of his article, Larson discusses each of Straus’s conditions, stating that they are a result of the operation of prolongation rather than a precondition for prolongation, and that while Straus may define prolongation and association as mutually exclusive, he defines prolongation as a specific type of association. Larson’s assertions represent a distinctly linear view of prolongation when he says that it arises only out of embellishment, and that “harmony is an emergent property of the interaction of musical forces generated by melodies.”

Straus’s subsequent response to Larson concedes that the a priori statements Straus made regarding consonance and dissonance were incorrect; he recasts his views to represent a more symbiotic relationship between consonance and prolongation. Though, he writes, this may create a theoretical impasse, the practical consequences of his view are negligible in the analytical process; the analyst simply moves “flexibly back and forth between the relevant categories.” Further, Straus reinforces his belief that one must “reliably and consistently distinguish between consonant/stable/supported tones and dissonant/unstable/unsupported tones,” and be able to “reliably and consistently describe the embellishing relationships that tie...
the latter to the former” to produce justifiable prolongational analyses.\textsuperscript{11} 

In his 1989 article, Fred Lerdahl proposes a theory that regards “contextual salience” in atonal music as analogous to stability in tonal music, on the basis that for listeners of post-tonal music “relative salience becomes structurally important”. His desire therefore is to sketch a listener-based theory of atonal music, and to provide a common theoretical ground between atonal and tonal prolongation.

“The historical development from tonality to atonality (and back) is richly continuous. Theories of tonality and atonality should be comparably linked. It does not suffice to apply pitch-set theory to underlying quasi-Schenkerian levels for tonal music...What is needed is a theory that is general enough to underlie both idioms yet flexible enough to adapt to the ways in which the idioms differ and intermix.”\textsuperscript{12}

Addressing the problematic aspects of the “two broad ways” of analyzing pitch structure in post-tonal music, that is, pitch-set theory and adaptations of Schenkerian theory, Lerdahl writes that analysis of pitch-class sets does not relate to the listener’s organization of pitches at the musical surface, and has a lack of hierarchical description. He states that “without a hierarchical framework, it is difficult [for listeners] to cognize sets,” as they recognize the hierarchically important events in tonal music. His belief is that an atonal prolongational theory that sheds its Schenkerian origins is possible and can account for the “intuitions of elaboration and linear connection that atonal music evokes.”\textsuperscript{13}

Lerdahl goes about devising this theory by first modifying his and Jackendoff’s writings on a generative theory of tonal music, or \textit{GTTM}\textsuperscript{14}, so that it may apply to atonal music. This new scheme, he writes, finds a way around the obstacle of attempting to apply Straus’s four conditions for prolongation in tonal music to post-tonal music. The “crux” of this new theory is,


\textsuperscript{13}Ibid.

as mentioned above, the decision to regard contextual salience in post-tonal music as analogous to stability in tonal music.

Regarding Straus’s 1987 article, Lerdahl finds its argument clear but circular, stating that Straus has merely devised a method for describing classical tonal music, and subsequently proven that other music does not “fit in”. Further, though Straus suggests that his four conditions for prolongation could be met by means other than tonality, Lerdahl rejects the role of stability conditions in post-tonal music on *a priori* grounds, writing that “atonal music almost by definition does not have stability conditions.” He summarizes the situation of post-tonal prolongational theory, and in particular pitch-class set theory, as analogous to eighteenth-century figured bass theoretical thought. That is, pitch-class set theory treats music in terms of intervals, and that a higher-level approach to post-tonal pieces analogous to the Schenkerian theory of tonal music has yet to be satisfactorily developed.

Olli Väisälä’s 1999 article discusses the issue of prolongation in post-tonal music with specific reference to, and commentary on, Straus’s articles. In addition to this, he attempts to discover “contextually” established norms for Schoenberg’s op. 19/2. Unlike Straus, Väisälä states that his analytical method involves the distinction between pitch and pitch class. In order to make this distinction Väisälä proposes the *registrally ordered interval* (ro-interval), which distinguishes complementary intervals from each other, as in semitones and major sevenths. There are thus eleven distinct ro-intervals; simple and compound versions of an interval are treated as equivalents. He then defines the *registrally ordered pitch-class set* (ro-set), whose ordering is calculated from the lowest to the highest note, and whose use in analysis “may go further in identifying harmonic similarity than the use of pitch-class sets.”

Väisälä explores this concept with reference to the theory presented in Robert Morris’s 1995 article, which explores the relations between pitch and pitch-class function. Morris does this by defining in the context of pitch-class space three “context-sensitive definitions of pitch equivalence,” called pitch-set class or PSC (the collection of psets related by Tn), pitch-class INT (the list of a pc-segment’s successive adjacent ordered-intervals) or PCINT, and figured

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Väisälä utilizes Morris’s PSC, PCINT, and FB as a way of restricting octave equivalence to the appropriate degree for his analytical purposes. He then formalizes three “rules of consonance” which imply “a conception of harmony based on the superimposition of registral layers, each of which contain three successive tones,” in the belief that the structural status of harmonies and intervals is crucially influenced by the registral distribution of pitches.

The analytical technique described in this article, he writes, is supported by the pitch-based norms required by Straus’s conditions of prolongation. The main difference between his and Straus’s approach lies in the interpretation of harmonies, as Straus uses unordered pitch-class sets.

“Ultimately the point is not that Straus’s conditions should be rejected but, rather, that they cannot be mechanically applied to the musical surface with no consideration for broader context.”

Considering the four conditions for prolongation, Väisälä summarizes Straus’s 1987 statements regarding Roy Travis’s 1966 analysis of Schoenberg’s op. 19/2. Straus states that Travis is incorrect in labeling the last measure of the piece as “tonic” because it is impossible to interpret the voice-leading motions stipulated by condition 4. This is because Travis’s “tonic” as a set class does not, as condition 1 requires, establish a clear distinction between consonant and dissonant intervals. However, Väisälä believes the registral positioning of the pitches in the harmony may affect its interpretation using the above conditions, and therefore prefers to use ro-intervals instead of the interval class designation used by Straus.

After explaining his method for incorporating the registral aspects of harmonies in his analysis of op. 19/2, Väisälä distinguishes the two main “counter-arguments” made against Straus’s conditions since their publication, that is, Larson’s argument that the conditions are not valid even for tonal music, and Lerdahl’s that the reasoning behind the conditions is circular as they are modeled after the specific repertoire of classical tonal music. Väisälä, however,

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17 Väisälä, “Concepts of Harmony”.
Catherine Hirata addresses this issue in her dissertation when she writes, “among the rewards of attempting to hear a work along more traditional lines is an analyst’s...being led, by the way in which the music resists such a hearing, to notice aspects of the music which he or she defend the conditions against both counter-arguments, citing in particular Straus’s 1997 response. In general, Väisälä finds Straus’s conditions appealing in that they “point out ways in which pitch-based norms affect prolongational structures, as these are known from tonality, without tying the norms to the particulars of tonality.” His only reservation lies in the way in which the two-stage system defined by conditions 1 and 2 is the only possibility for determining harmonic stability. Instead, Väisälä believes that a system of consonance and dissonance does not necessarily require a distinction between two alternatives, and that there may be finer gradations of harmonic stability than Straus postulates.

At the end of his article, Väisälä states that the crucial idea in most of the proposed prolongational analyses of post-tonal music has been the replacement of the triad by other referential harmonies. He believes that this kind of assumption about the structure of post-tonal music may offer clues to the ways in which the four conditions are met therein. Two conclusions are therefore drawn regarding prolongation in post-tonal music. Firstly that syntactic norms relevant to prolongation found in post-tonal music are most likely not to be discovered purely on a pitch-class set basis. Secondly, that the registral disposition of harmonies plays a more significant role than is often acknowledged in post-tonal prolongational analyses. Following this line of thought, it becomes apparent that a prolongational analysis must first set down its stipulations for supported and unsupported tones in order to be effective. This is where conceptual continuation as an analytical method differs, in that it requires no such identification because it is not geared towards identifying a hierarchical structure but rather a surface continuation.

A REVIEW OF FELDMAN SCHOLARSHIP

Music-theoretic scholarship on Feldman’s music is as yet confined to a relatively small community, a fact presumably due to the nature of the music, which has been found by some resistant to analysis.¹⁸ The analyses of the later music all point to the use of patterns as of

¹⁸Catherine Hirata addresses this issue in her dissertation when she writes, “among the rewards of attempting to hear a work along more traditional lines is an analyst’s...being led, by the way in which the music resists such a hearing, to notice aspects of the music which he or she


unique analysis; Johnson strives to draw correlations to the minutest detail between the music and the total work of art that is Rothko Chapel (located in Houston, Texas) with reference to the personal affinity between the two artists. Johnson considers each work unique to its respective artist’s output, describing in detail the paintings of the chapel, in an effort to make correlative descriptions of the sections in the music. He claims that the progression (from north to south) of the paintings from dark to light in the chapel resembles the progression of the four formal divisions of the music.\textsuperscript{22} In speaking of an “immobile procession,” where both stasis and directional pull are implied simultaneously, Johnson offers a chart which describes the “five kinds of time...shown as a continuum” found in the piece. Ultimately, Johnson finds justification for his analytical motives by drawing upon the biographical material of the two artists.\textsuperscript{23}

Beyond those analyses concerned with identifying formal structures in Feldman’s music are those that deal specifically with the existence of repetition and change, the “reiteration and variation of limited material” as described by Catherine Laws.\textsuperscript{24} By referring to the autograph in her analysis of \textit{Piano} (1977), Paula Kopstick Ames notes the apparent significance of page layout in Feldman’s compositional decisions (to be addressed further in the following analysis of \textit{For John Cage}) for this piece, as certain systems appear in their entirety layered over later passages.\textsuperscript{25} Catherine Costello Hirata defines her approach to Feldman’s music as utilizing a “general methodological framework...associated with the notion of analysis as interpretation.”\textsuperscript{26} In her 1996 article regarding Feldman’s earlier music, Hirata discusses the purpose and validity

\begin{itemize}
\item \textsuperscript{22}Feldman defines these divisions himself, compounding the sense of ‘uniqueness’ surrounding this piece, in “Rothko Chapel,” \textit{Give My Regards to Eighth Street}.
\item \textsuperscript{23}Steven Johnson, “\textit{Rothko Chapel} and Rothko’s Chapel,” \textit{Perspectives of New Music} 32/2 (1994): 6-53.
\item \textsuperscript{25}Paula Kopstick Ames, “\textit{Piano},” in \textit{The Music of Morton Feldman}.
\item \textsuperscript{26}Hirata, \textit{Analyzing the Music of Morton Feldman}, pg. 16
\end{itemize}
of, and specifically how to analyze Feldman’s music.\textsuperscript{27} She is concerned with expressing how a sound can be expressed without relating to the sounds around it, how “the music...does not thereby pull those sounds together into compositional rhetoric, but instead gels within each individual sound of the composition.” She tries a few different ways of explaining how this happens with direct reference to \textit{Last Pieces} (1959), but in the end seems unsatisfied with both, nor is she worried about it, stating that “everything in the position of providing some explanation for the objects of our perception, will actually become the objects of our perception.”\textsuperscript{28}

\textbf{SYMMETRY IN WEBERN AND XENAKIS}

As can be seen in the above discussion, theoretical studies of Feldman’s music to date have not included a detailed discussion of coptic symmetry, most studies tending to focus instead upon the altered patterns that can create imperfect symmetrical constructs. As this aspect of Feldman’s music factors greatly in the present study, a review of the consideration of imperfect symmetry in other post-tonal composers’ work may prove helpful. To this end, the following is a review of two articles on symmetry in Anton Webern’s music (by Kathryn Bailey and Robert Morris), as well as two articles on symmetry in the music of Iannis Xenakis (by Jan Vriend and Evan Jones).

The topic of symmetry serves as the main subject of Kathryn Bailey’s 1996 article on Anton Webern’s Op. 24. Her writing is a narrative of Webern’s apparent compositional process for this piece, based on the succession of sketches available to her from the Paul Sacher Stiftung, and which she organized into chronological order. She highlights the progression of ideas, particularly Webern’s “quest for perfect symmetry”\textsuperscript{29} in the development of a row and its use in


\textsuperscript{28}Hirata, “The Sounds of the Sounds Themselves”

the piece, and how this necessarily ended in compromise. As she writes, taking advantage of all
the unities afforded by “this most symmetrical of rows would have led to complete stasis.” His
grappling with a “balance between expression and concealment” of this symmetry resulted in the
necessity for “vacillation between enhancement and camouflage.” Bailey (here speaking of
Opus 21, also characterized by symmetry) comments on Webern’s masterful balance between
identity and variety, the perfect reflections inherent in the row being continually thrown out of
focus by the use of canon, asymmetrical changes of tempo, scoring and textures, grace notes, and
elisions. The sketches for Op. 24 point to Webern having grappled with the dilemma of what to
do with the excess of symmetry inherent in his row.

“Symmetry was the row’s raison d’être, but it could also easily be its downfall...Either
the expression of the row’s symmetry—which had been so painstakingly achieved–must
be compromised, or the tedium would be overwhelming...In this work relatedness is not
something that needs occasional demonstration; it is inexorable, a constant threat which
must be studiously concealed.”

A comparison made between the pre-compositional desires and how these desires factored into
the finished compositions reveal certain similarities between Webern and Feldman. Both
composers struggled with the inevitability of symmetry inherent in their compositional
processes. In the case of Webern, symmetry is the ultimate goal in composition, however the
full realization of this goal would result in failure. Feldman, on the other hand, though
composing with patterns, seems to have made every effort to obscure their periodicity.

Robert Morris also addresses what would seem the disturbances in a preexisting model
(such as symmetry provided in the above example), when he identifies the “deviations from
normative pitch and pc collections and sequences” found in the first movement of Webern’s op.
7/1 for violin and piano.\(^{30}\) Morris identifies the aspects of the piece he considers to be in
apparent conflict, e.g the conflicting violin and piano phrases. These conflicts, called by him
“tiny anomalies” and “near-misses,” form the basis of his consideration of the piece. Thus he is
led to the formation of a “background” structural model for the movement, pointing out how

\(^{30}\)Robert D. Morris, “Conflict and Anomaly in Bartók and Webern,” in *Musical
Transformation and Musical Intuition: Essays in Honor of David Lewin* (Dedham, MA:
“small details that do not appear to fit together just right can nevertheless lead to a more embracing musical view that ultimately subsumes them.” Just as Morris strove to explain op. 7/1's “tiny incongruities” in relation to a background model, the present study strives, in part, to point out the deviations from symmetrical patterns found in For John Cage.

In the absence of a formalized theory of coptic symmetries in Feldman’s music, however, there may be drawn certain parallels to the work done in reference to another composer who was conscious of the need to deny the symmetry born of the patterns that result from his compositional process. A discussion of the theoretical work done in relation to Iannis Xenakis’s use of “sieves” may be here warranted. Sieve theory is built on the tenet as stated by Xenakis that “the perception of a basic intervallic unit, and multiples thereof, is fundamental to all musical perception.”

It is the juxtaposition of “regularly reiterative event-classes” and involves the study of the internal symmetries found in a series of points either constructed intuitively, by observation, or by repetition. The structure of a sieve may be modified through a change in the moduli (the distance between repetitions), the transposition indices (the starting position of the modular repetition), the unit of elementary displacement (e.g. a semitone), or the logical operations that connect them, resulting in a metabola.

Intuition, as in Feldman’s music, plays a role in Xenakis’s use of sieves. Jan Vriend speaks of Xenakis’s “variation and anti-symmetry for their own sake” and his use of “intuition, taste and intelligence...when it comes to questions that lie behind the technical solutions” which result from the use of sieves. Vriend explains the process used by Xenakis, elucidating the design of Xenakis’s “complex composing-machine” in his 1966 work for solo cello, Nomos Alpha. This process incorporates eight sound complexes into sequences; the order of the complexes in a sequence is governed by group transformations. This achieves the reduction and

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32 This definition is drawn from Xenakis, Formalized Music...

selection of possibilities to a “manageable” degree, and provides rules for linking these together into a series, the result being a coherence that comes from a closed system of transformations, and provides for the symmetry of the group. Exact symmetry, Vriend writes, is not Xenakis’s goal in his use of sieves, as the composer must decide between repetition and variation. Vriend also mentions briefly the psychological aspects of the different listening strategies, memory problems, and conditioning factors, involved in the consideration of “short musical realities,” much like those “realities” the present study will consider. As with this study, Vriend found it important to address the definition of an “event,” as it refers directly to the phenomenon of conceptualization.

Another issue Vriend discusses is that of the scope of his analysis, wherein the analytical determinants are kept to a minimum so as not to disturb the particular character of the chosen level of analysis, “because we had a certain purpose in mind which ‘works’ only on that level.” This abstract system of analysis cannot be directly applied to the musical system, so that one must “perform purely symbolic actions on the musical material,” as a description in terms of the intrinsic necessities of the music is not possible. This draws a parallel to the present study, whose abstract system of analysis can be considered only on its “chosen level,” and which does not purport to explain the “necessities” that are inherent in the music.

In his 2002 article regarding an algorithmic interpretation of Xenakis’s sieves, Evan Jones defines Xenakis’s sieves as “custom-designed collections constructed from interwoven chains of elements...separated by congruent intervals.” A parallel may be drawn to the distinct musical events found in For John Cage under consideration here, as they are defined as “collections,” apparently “custom,” or, intuitively, designed by Feldman. The components of a sieve are called “residue-classes” and are combined to form “residue-class sets.” These are methodically organized, at which point “certain musical decisions are then made about the end result by the composer.” A corollary may be drawn here between the compositional processes used by Xenakis and Feldman through an abstract comparison of Jones’s analytical RCsets to the “events” found in Feldman’s music mentioned above. Similar to Xenakis, Feldman has also

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stated that his musical material (or Xenakis’s RCset) was the result of the “superimposition” of distinct parts (or Xenakis’s RCs), and whose final image may be altered (that is, the sum of the distinct parts may not be equal to the whole) according to musical taste.\footnote{See Feldman’s pre-concert remarks before the American premiere of his 1982 piano piece \textit{Triadic Memories} in “Triadic Memories,” \textit{Give My Regards}...}

Roger Reynolds, though not specifically concerned with sieve theory, addresses repetition in Xenakis in his 2003 article. It is interesting to note that, like Feldman, Xenakis was also fascinated by the art of the Near East. Reynolds quotes Xenakis:

“For me, the most interesting percussion system in traditional music is, or used to be, music from India. They had so much variation, tiny variations, for the same things when they were repeated...”

He points out that by “repetition” Xenakis does not mean exact replication, but merely that it is “thinking again about the same thing.”\footnote{Roger Reynolds, “Xenakis:...Tireless Renewal at Every Instant, at Every Death...” \textit{Perspectives of New Music} 41/1 (2003): 4-66.}

The above discussion has elucidated the significance of pattern and symmetry in the construction and subsequent analysis of Xenakis’s compositions. Certain parallels have been drawn between this aspect of Xenakis’s “sieve-theoretical” compositions and Feldman’s 1970's and 1980's rug-inspired works. As will be seen in Chapter Two, coptic alterations of pattern and the imperfect symmetry created thereby are an integral part of conceptual continuation, as the nature of coptic (i.e. slightly altered) alteration allows for material to be extended without being developed over the course of time. The term coptic alteration will be used, in the following analyses of \textit{For John Cage}, in reference to surface details, such as octave displacement, enharmonic note realization (in the violin part), and slight rhythmic alteration, as well as alterations made to the pitch material of the larger patterns themselves. That is, any aspect of the musical material which is being “extended” through alteration is being subjected to coptic alteration and possibly forming a coptic symmetry, and this process effects the conceptual continuation of the material.
CHAPTER TWO

COPTIC ALTERATION AND SYMMETRY

In the early 1970s Feldman began to develop a style in which he worked until his death in 1987. His fascination with Middle Eastern patterned rugs, combined with a desire to explore the concept of “scale” in his music, resulted in pieces such as *Neither* (1977), *Spring of Chosroes* (1979), *Triadic Memories* (1981), *Coptic Light* (1986), and *For John Cage* (1982). Each of these pieces explore the extended repetition of patterns over the course of (at least) an hour, and no sense of progression within or between patterns seems to occur. Stating that in this style musical grammar is not present, Feldman writes:

“there is no continuity of fitting the parts together as in a sentences or paragraph...A syntactic approach would be as out of place here as Schoenberg felt a tonality not based on triadic harmony would be in his music.”

The patterns themselves are composed of small musical figures which are reiterated and altered slightly—the coptic changes discussed above.

As he stated in 1986, Feldman had “an avid interest in all varieties of arcane weaving of the Middle East,” an interest that had been recently explored at the time of this statement in the “stunning examples of early Coptic textiles,” on permanent display at the Louvre. Louis Goldstein has written of Feldman’s fascination with the Eastern rugs and their influence on his

37 As Feldman writes, the “question of scale, for me, precludes any concept of symmetry and asymmetry from affecting the eventual length of my music...The reciprocity inherent in scale...has made me realize that musical forms...are essentially only methods of arranging material and sever no other function than to aid one’s memory.” Feldman, “Crippled Symmetry,” pg. 137.


Goldstein gives a good description of the Near and Middle Eastern rugs:

> “one sees the same patterns repeated throughout a space, and the impression is strong that the result is symmetrical. However, closer examination reveals...that an inverted candelabrum shape along the borders is repeated eighteen times on one side and nineteen times on the other, and further, the colors do not match up...patterns that look the same but are in fact composed of small variations among the details.”

He finds that Feldman “often arranges sound so that repetitions are recognizable as repetitions, but the patterns of those repetitions are not discernible.” Regarding the repeat sign so often found in Feldman, Goldstein notes that, though it may create an exact symmetry, it does so at a time interval beyond most listeners’ memory. In his program notes to “Triadic Memories” Feldman explains his compositional process:

> “In Triadic Memories, there is a section of different types of chords where each chord is slowly repeated. 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 discernible pattern.”

In this way Feldman creates a temporal landscape “where memory, the cornerstone of perceiving musical form, is consistently thwarted.”

In her 2003 dissertation, Catherine Hirata writes of Feldman’s use of patterns with reference to his self-stated admiration for the hand-woven rugs. She states that the irregularities found in these rugs led Feldman to use “irregular orderings of sounds,” in that he matched the slight variations in color and pattern found in the rugs with the slight variations

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41 Morton Feldman “Triadic Memories,” Give My Regards...

42 Goldstein, “Morton Feldman”.

found in the timing and intonation of sounds in *For John Cage*. Feldman referred to his technique of composing patterns of sound as “extension”, not development, and Hirata notes that “for Feldman, part of the idea of composing with repetitive figures was to get away from a sense of development.” She then attempts to show what Feldman does with individual sounds, “how he weaves them, and the effect of that weaving.” However, as she mentions, he does not always weave the sounds but may simply repeat them intact multiple times.

Hirata then comments on how Feldman seems to have considered the patterns as complete units, with no connection from one to the other necessary, that “whereas one pattern might be suddenly interrupted by the next, another might seem to slowly unravel before the next.” In her efforts to relate to the listening experience, she writes that “We perceive the contrasts between one [pattern] and the next, as well as the differences among these contrasts,” and that some “may contrast in every respect but pitch.” Feldman writes of similar issues regarding *Coptic Light*, his 1985 composition for orchestra: “I set to work to create an orchestra pedal, continually varying in nuance. This ‘chiarosuro’ is both the compositional and the instrumental focus of *Coptic Light*.”

Further, in his “Crippled Symmetry” essay, Feldman states the rugs inspired him to think along the lines of a “disproportionate” symmetry, illustrated by the symmetrically staggered rhythmic series of 4:3, 6:5, 8:7, and so on.

“The most interesting aspect for me, composing...with patterns, is that there is not one organizational procedure more advantageous than another, perhaps because no one pattern ever takes precedence over the others. The compositional concentration is solely on which pattern should be reiterated and for how long, and on the character of its inevitable change into something else.”

Hence, a significant aspect of Feldman’s late work is an awareness of pattern and the symmetry born out of it, and the subsequent conscious effort by the composer to deny this pattern its complete symmetry. Coptic symmetry may therefore be defined as the near-exact (but not quite) correspondence in duration, pitch/rhythmic content and arrangement of parts on opposite sides.

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44 Morton Feldman, “Coptic Light,” *Give My Regards...*

45 Feldman “Crippled Symmetry,” *Give My Regards...*
of an axis in time; one of these attributes will be slightly altered if the symmetry is to be considered coptic.

In preparation for the consideration of altered patterns in *For John Cage*, a cursory examination of Feldman’s use of coptic alteration and symmetry in others of his late pieces will be helpful. The following examples are drawn from two piano works, namely *Triadic Memories* (1981) and *Piano* (1977). The first ninety measures of *Triadic Memories*, given in Example 2-1, provide a clear example of Feldman’s creation of coptic symmetry via the slight alterations of repeated patterns. 46 Eight pitch classes total are presented in seven different octaves over the course of this section, the left and right hands beginning five octaves apart, gradually jumping octaves to play closer and closer together, and subsequently moving apart again. There are two components that make up the figure that is the basis for the main pattern in this section: G and B-flat, each occupying a full measure of 3/8, occur in one hand; played in the other hand are G-sharp and D, and C-sharp and A, each pair of notes occupying a measure. While Feldman is consistent with this first component, always presenting first the G in one measure and then the B-flat in the next measure throughout this section (first in the right hand, then in the left at m. 51, then back to the right at m. 83), he is less strict with the ordering of the parts of the other component. Though the first two measures set up a pattern of G-sharp down to D followed by A down to C-sharp, Feldman quickly alters the pattern so that in m. 3 D is presented first, moving up to G-sharp. Similarly, C-sharp is presented first moving upwards to A, and instead of switching back to the G-sharp/D downwards moving pattern in measures five and six, Feldman repeats the upwards moving pattern of measures three and four. A graphic representation (found in Example 2-2) of the first twelve measures elucidates the possibility for a perfectly symmetrical grouping of patterns into two palindromes, at the same time showing how Feldman has denied the listener this perfection and therefore created a coptic symmetry. The direction of the lines on the graph (either upwards diagonally or downwards diagonally) correspond with the direction of the left-hand dyads with in that measure. It is between mm. 5-6 (which continue to move upwards instead of moving downwards again) and mm. 11-12 (which move downwards to

46For example, Feldman adjusts the placement of the pairs of notes (first played by the piano and later by the violin) slightly with the addition or subtraction of a dot.
create a perfect palindrome) that the coptic distinction is made in what would otherwise be a symmetrical grouping of patterns. This is the only instance for the next 75 measures where Feldman directly repeats the two note pattern; measure 81 begins a break down of the previously alternating measures of the G-sharp/D and A/C-sharp patterns.

In measures 81-90 Feldman presents another coptic alteration that differs from the (relatively predictable) preceding eighty measures. The G/B-flat pattern, always presented at least once in the same octave in the previous measures, at mm. 81-82 jumps through two octaves in two measure’s time, i.e. before the two notes have subsequently appeared in the same octave (see the circled notes in Example 2-1). As mentioned above, Feldman begins to repeat the two-note patterns at different intervals, repeating the C-sharp/A pattern four times (mm. 83-86) before returning to the G-sharp/D pattern, again repeating it four times (mm. 87-90). Another coptic change to be seen in mm. 81-82 is Feldman’s introduction of two entirely different pitch classes, presented in the guise of the now familiar two note patterns: G-flat up to F. While this coptic change may be considered as slight pattern alterations in the fabric of this section, these two new notes stand out as dramatic inconsistencies in hue that seem to forewarn of even more drastic changes to be heard ten measures later.

Slightly more complex are the patterns found in the last 35 measures of Piano.47 Example 2-2 gives the last two pages of the score; the eleven distinct chords that are replicated throughout this section are circled and labeled with numbers and lowercase letters. The chord numbers are not meant to indicate primacy of one over the other, but are merely an analytical-organizational tool. The letters, however, denote that the designated chord is closely related to the chord bearing the same number. Chord 1a, for example, contains the same pitch classes as chord 1 and is simply an alteration of it; the G-sharp of 1 is moved up an octave and respelled as A-flat in 1a, while G is moved down an octave. Similarly, 1b is the same as 1a, with the exception of the lowest pitch of the chord, G4, which is omitted. The difference between 2 and

47 Due to the uneven overlapping of measures found earlier in the piece, it is difficult to give exact measure numbers for this section (it is published without measure numbers). Therefore, for the sake of clarity, the first measure under consideration will be called [1], while the last measure under consideration, which is also the last measure of the piece, will be called [35].
2a lies in the octave displacement of C-sharp, while in 2b the C and C-sharp swap octave placement. Finally, the C in 4 is moved down an octave in 4a. A consideration of the manner in which these chords are presented reveals certain consistencies that may be obscured to both eye and ear when first experiencing this passage. For example, the chords 1, 1a, 1b, and 3 are the only ones present in the right hand, while the rest are exclusively played by the left hand. While no all-encompassing patterns are apparent within each hand, some patterns may be found upon close study. For example, mm. [3]-[10] and [17]-[24], each contain the left-hand chord pattern 4-5-2b-2-4a-6-2a-2. Looking at the combination of the two hands, chord 2a always appears with 1a, just as 2b always appears with 1; chords 5 and 6 always coincide with chord 1b, as do chords 4 and 4a with chord 3. From this it would seem that Feldman considered the result of the two hands put together important in the construction of this passage.

The above examples were intended to illustrate Feldman’s use of pattern as a compositional tool in his later music. Musical material appears to have been created and subsequently manipulated into irregular reiterations which create some amount of patterning nonetheless. As shown in the excerpts from *Triadic Memories* and *Piano*, this compositional method, not solely to be found in *For John Cage*, is a common one for Feldman in the late 1970's and 1980's.

**CONCEPTUAL CONTINUATION**

The present study will examine local events which might seem to accomplish “prolongation,” or at least “development”. These classifications, however, would most likely be inaccurate in relation to this music. The purpose here is not to show how the piece in its entirety is born of one unifying idea or process, but rather to discuss how, at the surface level, Feldman appears to have created instances in which musical events become established in the memory. This establishment is achieved through multiple repetition of the events, though their integrity may be subjected to alteration and interruption. For the purpose of clarity, therefore, the phrase “conceptual continuation” (to be explained below) will be used in preference to the word “prolongation”, and “development” will be replaced with “extension”.

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The word “extension” is used by Feldman in his 1981 essay “Crippled Symmetry” to refer to his method of altering slightly distinct musical units over the course of many measures. Hence, Feldman distinguishes extension as a compositional technique differing from that of development. In reference to the excerpt from his 1977 *Spring of Chosroes* (also for violin and piano) given in Example 2-3, Feldman writes that the displacement of the violin pattern within the quintuplet provides five permutations.

“[These] are then juxtaposed in a helter-skelter fashion as the series continues...A modular construction such as the above could be a basic devices for organic development. However, I use it to see that patterns are ‘complete’ in themselves, and in no need of development—only of extension...For me patterns are really self-contained sound-groupings that enable me to break off without preparation into something else.”

The presentation of a compact musical event, usually spanning one to two measures, and repeating it, either exactly or slightly varied, over a period of several measures is the first and simplest instance in which conceptual continuation can be understood to occur. By “slightly varied” I am referring to material that is repeated with small changes in rhythmic duration, enharmonic interpretations of pitch by the violin, and the like. Feldman’s description of the text by Samuel Beckett (written specifically for Feldman) that he set in his opera *Neither* (1977) relates to this idea:

“every line is really the same thought said in another way. And yet the continuity acts as if something else is happening. Nothing else is happening. What you’re doing in an almost Proustian way is getting deeper and deeper saturated into the thought.”

As Feldman related in one of his Darmstadt lectures, part of Beckett’s writing process was to “write something in English, translate it into French, then translate the thought back into the English that conveys that thought.” A similar process, which Catherine Laws refers to as a

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50 Ibid.
“constant recontextualization of sound,”\textsuperscript{51} may be said to have been executed by Feldman in the composition of \textit{For John Cage}.

Another way to think about conceptual continuation can be found in a statement made by Laws in her discussion of Feldman’s setting of this Beckett text:

“Feldman’s perception of the text is of the repetition in terms varying in small incremental differences of a single idea...For the composer, the text is a multi-dimensional object, exposing different facets of the same ‘non-idea’ while giving the impression of change.”\textsuperscript{52}

She states that Feldman’s concern was to create music with “surface” definition, whose purpose is solely to capture the “direct experience of temporal existence.”

The second type of conceptual continuation involves the presentation of a challenge to the memory of the stated musical event directly after it has been introduced and reiterated. Such a challenge could involve one or more of the following possibilities: alteration of the material to a greater extent (as in the addition of notes or the separating of the elements which constitute the event), or the insertion of silence between repetitions of the event, or the introduction of a new event. Despite his use of these techniques, however, Laws writes that “Feldman avoids the sense of development or eventfulness that would normally result from the introduction of new material,” as change and reiteration may both be present, “but only to the minimal degree necessary for the continuation of the piece.”\textsuperscript{53} In this way Feldman “continues” musical events without developing them.

A final possible type is to be found in a segment of music presenting the third option described above, a continuation challenged by new material. The subsequent extension of that material, to the point that both of the discrete events now present compete for supremacy in the listener’s memory, adds a new layer to one’s understanding of conceptual continuation. Here the


\textsuperscript{52}Ibid.

\textsuperscript{53}Ibid.
This concept has been invoked with reference to overlapping prolongations in Schenkerian graphs. In these instances, two interpretations of a middleground structure would seem to coexist with (or contradict) each other, whereas in the situation at hand two distinct musical ideas alternate and interact directly on the musical surface. See Naphtali Wagner, “No Crossing Branches? The Overlapping Technique in Schenkerian Analysis,” Theory and Analysis 20 (1995): 149-175.

Conceptual continuation, then, is achieved in varying stages. These stages will be called CC1, CC2, and so on. Firstly, there is the presentation of the material to be conceptually continued, called CC1. Secondly, a challenge to the memory of this material is presented, called CC2. This can take the form of an alteration of the original material, an extended silence, and/or “new” material. Thirdly, the new material may become a second “strand” of conceptually continued material, challenged either as above, or by intervening presentations of the original material and its alterations, called CC3. As stated above, Chapter Two will address in Feldman’s music the slight and gradual perturbation of pattern referred to as coptic alteration and the equally coptic symmetry that may arise as a result of the ordering of the patterns. These alterations of patterns factor into the achievement of conceptual continuation, as the nature of coptic alteration allows for material to be extended without being developed. These procedures will be illustrated in the analysis of For John Cage found in Chapter Three.
CHAPTER THREE

ANALYSIS OF FOR JOHN CAGE

Conceptual continuation, as described in Chapter Two, is achieved in varying stages, which will be called CC1, CC2, and CC3. In the case of CC1, material is presented and subsequently conceptually continued. Alterations of pattern factor into the achievement of conceptual continuation, as the nature of coptic alteration, and the irregular symmetry that may arise as a result of it, allows for material to be extended without being developed. CC2 initiates a challenge to the memory of this material, and can take the form of a alteration of the original material, an extended silence, and/or “new” material. The new material may become a second “strand” of conceptually continued material, challenged either as above, or by intervening presentations of the original material and its alterations, beginning an instance of CC3. Below is an illustration of a hypothetical instance of conceptual continuation in which two strands are continued:

(CC1) Idea 1 — coptic extension — altered Idea 1 (CC2) — Idea 2 — Idea 1 (original or altered version) (CC3 - reinitiating CC1 for Idea 2) — coptic extension — altered Idea 2

ABOUT FOR JOHN CAGE

*For John Cage*, lasting about 70 minutes over 900 measures, is one continuous movement; i.e. Feldman does not signify a division of the music into different movements or sections on the score. Differing sections can be heard, however, either as abrupt shifts from one set of ideas to the next, or as subtle and gradual changes in which the material from one idea blends into the material of the next idea. Musical “ideas” may be defined in this piece by pitch-class content, register, timbre, or distinctive rhythmic patterns, or by a combination of these attributes. Though when listened to in its entirety for the first time, *For John Cage* may seem to have a through-composed form, an examination of the score reveals repetitions of material over
large expanses of time. For example, the music found in measures 885-895 can also be found exactly as it is there over 200 measures earlier in mm. 676-687. These repetitions may be exact, as in this case, or they may be alterations of the original material. While much of the score can be linked with the music of (often distant) previous measures, the function of these repetitions is not clear. What is clear as a result of these repetitions, however, is that the form of *For John Cage* appears to be more complex than if it were through-composed.

As will be shown in the following analyses, at least at the microcosmic level this piece exhibits conceptual continuation of individual ideas at varying stages. Reference will be made in two of the analyses to Feldman’s sketches, which are owned by the Paul Sacher Stiftung in Basel, Switzerland, where I was allowed to view them (on microfilm and also a few of the originals) during the summer of 2003. As of then, there were 35 pages on microfilm and several more loose sketch pages that were believed to have been used in the composition of *For John Cage* but had not yet been identified with certainty as such, and are therefore not copied to microfilm. The pages are not numbered and were often used to sketch more than one section, so that the entire page is often filled with (sometimes disparate) material, making it difficult to estimate in what order Feldman developed the different sections of the piece. However, as will be seen in some of the following analyses, comparisons drawn between sketched material and its published incarnation will prove useful in identifying conceptual continuation.

The following is a description of where in the time span of the piece the analyses to be discussed occur (the points in time listed are based on the Paul Zukofsky recording cited below and are therefore to be considered approximate):

ANALYSIS OF BEGINNING MEASURES (1-34): the first three and a half minutes.
ANALYSIS OF MEASURES 53-84: begins at 6 minutes and 28 seconds, ends at 9 minutes and 10 seconds.
ANALYSIS OF MEASURES 150-173: begins at 13 minutes and 16 seconds, ends at 15 minutes and 9 seconds.
This result of these respellings is a certain amount of intonation compensation in the recording done by Paul Zukofsky. *Morton Feldman-For John Cage*. Paul Zukofsky, violin and Marianne Schroeder, piano (CP2 copyright, Musical Observations, Inc., 1990).
The alteration of the original idea is itself altered through coptic alterations of the rhythm and octave placement for the remainder of the first system, continuing the extension of the original idea in the listener’s memory. For example, the violin’s C-flat to A-sharp in measures 3-4 are played as eighth notes spanning two measures, while this same pattern is played within one measure as a pair of dotted eighth notes in m. 5. The piano’s pattern experiences similar rhythmic alteration, and the violin’s final C-flat to A-sharp of the system is played an octave lower than each of its previous statements. At this point Feldman continues this instance of CC2 in this material with a measure of silence that is followed by a measure containing a half note B, the first note of the piece transposed up an octave and therefore a transformation of the original material. Feldman continues this trend by transposing up an octave the third and fourth notes of the piece, omitting only the second note. In this way, and by repeating this pair of measures seven times, Feldman reorders the original material in such a way that our memory of it is challenged. This method of alteration continues until measure 35, where Feldman introduces the first new pitch class, D6. After six repetitions of these two measures, another “first” can be heard, namely, two notes played simultaneously, D5 and A-flat6. Feldman’s presentation of these new aspects, which are relatively far removed from the material presented in the first 34 measures, seems to signal a departure from the opening idea and its conceptual continuation.

ANALYSIS OF MEASURES 53-84

Let us move ahead in the score to measures 53-84, which present a more advanced instance of conceptual continuation. The beginning of the piece presented the extension of a musical idea over the course of four systems, excluding the possibility of competition with differing musical ideas. The measures following 53, on the other hand, represent the juxtaposition of a variety of different ideas, though it will be seen that there is one idea which recurs with a consistency throughout the measures that effects a conceptual continuation at three stages. Reference to the sketches will prove helpful, particularly with respect to the ninth and tenth sketch systems, and Example 3-2 reorders the score to reflect the appearance of systems 7 through 11 in the sketches. It should be noted here that Feldman sketched the first 94 measures
of the piece in their entirety and split them into twelve systems. These systems are shifted either backward or forward when they appear in the published score.56 In the case of measures 53-84, the ordering of the ideas to be discussed is clearer in the sketches than in the published score. To further aid comprehension of this section it will be helpful to refer to the graph of Example 3-3 throughout the following analysis.

Of the many seemingly disparate ideas presented throughout this section, only one particular idea consistently appears, presented at least once in all but the tenth system. This idea, first found in m. 54, is characterized by an oscillation between G and A at an interval of a ninth, and is presented by Feldman in a variety of time signatures and rhythmic figurations. Feldman frames the first presentation of this oscillating idea with material that resembles in its figuration the beginning measures of the piece, e.g. mm. 10-11. Here, B5 is followed by D-flat5 moving up to B-sharp5, while in m. 53 the order is reversed and compressed, as D-flat4 moves up to B(natural)4 and is followed by B-flat4 within the same measure. After the presentation of the oscillating idea in m. 54, this opening material returns in m. 55 with slight alterations, i.e. the D-flat to B dyad is played now by the violin instead of the piano, and the B-flat is missing. The following three measures contain material that is characterized by both harmonic and melodic semitonal figures, the likes of which are found neither in previous measures nor in the proceeding measures of this section. The disjunct nature of the presentation of ideas in sketch system 7 (and the first measure of sketch system 8) make it difficult for the listener to grab onto, at this point, any one specific idea for recognition at a later point, therefore suggesting that conceptual continuation is to be delayed until such an idea arises.

The type of “graspable” idea needed to consider continuation appears in mm. 59-60, and, significantly, at the end of the section under consideration in mm. 83-84 (after which the character of the music changes). The “Graspable” Idea is comprised of two components, incorporating the oscillating idea mentioned above, to be called Oscillating Idea 1. The violin plays in m. 59 a repeated D-flat5 to B-sharp5 dyad, followed in m. 60 by a similarly repeated D5 to C6 figure, and these pair of dyads are to be referred to as Oscillating Idea 2. Significant about

56Sketch system 7 begins at m. 53 in the published score; system 8 at m. 58; system 9 at m. 66; system 10 at m. 75; system 11 at m. 82.
these two measures is the appearance in the second measure of Oscillating Idea 1, played by the piano as it always is, and this time moving down a minor seventh, instead of up a ninth, from G4 to A3. This appearance suggests an experience in which CC1, the extension of the original idea, occurs simultaneously with CC2, the interruption of the original idea with a new idea. CC2 is maintained with a measure of silence, followed in m. 62 by another new idea: three harmonics played by the violin in ascending order, B-flat5 to D-flat6 to C-flat7. At this point Feldman separates out the elements of mm. 59-60, so that Oscillating Idea 1 returns in m. 63, restored to its ninth motion, and the violin dyads of Oscillating Idea 2 appear in the next measures. CC3 therefore begins in mm. 64-65 as Oscillating Idea 2 is extended through the reversal of its constituent measures, so that the C/D dyad occurs before the D-flat/B-sharp dyad.

Thus far, Feldman has implied the continuation of two ideas, Oscillating Idea 1 and Oscillating Idea 2, in the process of which he makes a hybrid of the two in mm. 59-60. The ninth and tenth sketch systems (beginning at m. 66 and m. 75, respectively) present an almost entirely new situation, one in which the push and pull for conceptual continuation between different ideas is clearer than in sketch systems 7 and 8, as the ideas are kept to a minimum and repeated in closer alternation. It is with these systems that Feldman’s ordering of ideas is clearer in the sketches than in the published score, as Feldman begins the next stage of continuation at the beginning of the ninth sketch system (as opposed to the middle of the eighth published system), and excludes the main oscillating idea throughout the entirety of the tenth sketch system (as opposed the last 3/4 of the ninth published system). Sketch system 9 continues the extension of Oscillating Idea 1, as A3 leaps down to G2 in the piano (note that the left hand is now notated in the bass clef). However, the oscillating aspect is denied when the figure is not permitted to repeat itself with in the measure, so that m. 66 contains only two notes. Instead, A3 and G2 are followed in m. 67 by the harmonics idea, first found in m. 62, and thereby initiating another stage of CC2 (the interruption of the oscillating idea with a new idea). The music progresses to CC3 during the next six measures, as Feldman alternates the extension of the oscillating idea with the harmonics idea, allowing them to compete for continuation. Ultimately, Feldman ends the competition when he allows, in m. 74, Oscillating Idea 1 to return, and this time in longer note values than any of its previous presentations. Also interesting to note about the ninth sketch
system is the coptic symmetry of its construction. The axis of symmetry for sketch system 9 may be found at m. 70, and it is the return of Oscillating Idea 1 which renders imperfect what would otherwise be a perfectly symmetrical presentation of ideas.

By the end of sketch system 9 Oscillating Idea 1, lost in a jumble of disparate ideas after m. 54 and subsumed in the dyads idea in m. 60, appears to be at the highest level of continuation of any so far considered in this section. However, Feldman undermines this conception by the total exclusion of either Oscillating Ideas in sketch system 10. A new idea is presented in m. 75, a three-note falling sevenths figure in the violin which moves from E6 down to D-sharp5 to F4. It is followed in m. 76 by a similar figure in the piano, which moves down a fifth from D5 to G4, and then moves down a seventh to A3. These two measures are repeated as a whole, and interrupted in m. 77 by a four-note rising figure (B-sharp 3 to D-flat4 to G4 to G-flat5) that is not repeated and does not reappear within this section. CC1 is again initiated with mm. 78-79, but with different material than in earlier instances, as Feldman extends the two falling figures of mm. 75-6 by swapping the instruments and altering their rhythmic realization. This is followed in mm. 80-81 with an alteration of the falling figures, thus initiating CC2. That is, the three-note figure of m. 75 is placed as the second of the two figures, and is played backwards and as a rising figure (F4 up to D-sharp5 up to E6). The second figure, now presented as the first, is also now a rising figure (D-flat4 up to C-flat5 up to B-flat5) and, because of the sevenths, resembles more an altered form of m. 75 than of m. 76.

Sketch system 10, due to its exclusion of any of the preceding musical material, resembles, at least at this somewhat microscopic level of analysis, a “closed” instance of conceptual continuation within the four and a half systems under consideration. In m. 82, the beginning of sketch system 11, Feldman returns to Oscillating Idea 1, which directly preceded the material of sketch system 10. Finally, in the last two measures under consideration (mm. 83-84), Oscillating Idea 2 also returns, with the inclusion of Oscillating Idea 1 to recreate the “Graspable” Idea as it appeared in mm. 59-60.

ANALYSIS OF MEASURES 734-772
We shall now consider another, perhaps clearer, example in which the music achieves CC3, that is, the material is differentiated into distinct strands and is then allowed to coexist in the immediate memory of the listener. Feldman sets loose three distinct ideas and allows them, momentarily at least, to vie for supremacy in the listener’s immediate musical memory. Ultimately, he chooses the winning idea for the listener through sheer repetition. A graphic representation of the measures to be discussed is given in Example 3-4.

Measure 734 is distinguished from the measures previous both rhythmically and texturally, and this distinction may therefore represent a “formal” division. The violin, as opposed to its continuous dotted sixteenths in the 7/16 meter found earlier, at m. 734 plays in 3/4 a relatively slow two-note pattern, while the piano ceases its activity. For the next six measures (three measures of 3/4 and three measures of 7/8) the violin repeats, via a two-note per measure pattern, an interval of two semitones downwards. Feldman alters the pattern, which I will call *Idea 1* (shown in Example 3-5), “coptically” by using three note spellings of pc5 and two of pc4, which, as noted before in footnote 52 is reflected in the intonation of the performer. These intonation adjustments affect the listener’s receptions of the individual measures, so that the impression is that more than a repeated downwards moving semitone is occurring throughout the six measures.

At this point, in m. 740 Feldman presents a texture in which a piano chord is followed by a melodic interval in the violin. This material, to be called *Idea 2*, is contained within a measure, in 8/8 (measures 740, 742, 746, 752, 756) and later 3/2 (measure 762), and is iterated at varying levels of repetition. *Idea 2* is shown in Example 3-6. The piano chord, as can be seen, consists of three stacked intervals that are smaller by a semitone if one looks from the bottom up. The notes of the violin, on the other hand, can be seen as a transformation of those notes found in the original material of the beginning of the piece. Comparing the violin notes in measures 3-4 to those in m. 740, the notes are presented in retrograde and the C-flat is transposed up an octave.

This measure, or *Idea 2*, is repeated a total of twelve times with only a silent measure of interruption after the fifth repetition. *Idea 1* returns, altered, as the last three measures of the original, but is quickly replaced by *Idea 2* in phase three of the conceptual continuation, never to
return. It would seem that Idea 2 is now the sole conceptual victor of this portion of the piece, as it has been repeated intact the most of the two ideas present in this section. However, Feldman throws another wrench into works by presenting Idea 3 (Example 3-7).

Idea 3 consists of five measures of 5/8 (mm. 747-751), each containing a single note and progressing upwards by interval 10 in the piano. This idea is repeated (mm. 757-761), transposed down by interval 2, after two more sets of extended repetitions of Idea 2 which are interrupted by three measures in which semitonal variants on 5 are presented in the violin. Ironically, my Idea 3 first occurs ninety measures earlier at m. 641, and again at m. 716, rendering my numbering of Feldman’s ideas somewhat arbitrary, though necessary for the analysis.

At this point, Feldman begins a series of coptic changes to Idea 2. Of particular interest are the four alterations the piano chord experiences beginning at m. 766, illustrated in Example 3-8. The piano chord presented in m. 766 is comprised of the intervals 10, 11, 4, 1, and 5 semitones from the bottom to the top of the chord, using the bottom note as a point of reference for the remaining pitch classes. In order to look deeper into the intervallic structure of Feldman’s chords in pitch-class space, this study will introduce the concept of pitch class height, or PCH. This concept combines a figured bass approach to chords\(^{57}\) with the contour segment used in contour theory,\(^{58}\) resulting in the analysts’ ability to rank intervals according to their position in a chord with reference to the lowest pitch of the chord.\(^{59}\) The contour segment is a

\[^{57}\text{This is drawn from Morris’s statement that the “concept of ‘before’ is interpreted in pitch as lower. Thus the pcs that follow the first pc can be realized in any register of pitch-space as long as they are higher than the first pc’s realization.”}\]

\[^{58}\text{Elizabeth Marvin West, A Generalized Theory of Musical Contour, Ph.D. dissertation, University of Rochester, 1988.}\]

\[^{59}\text{The “ranking” aspect involved in a PCH contour segment differentiates it from Bernard’s analysis of “intervallic adjacencies” and their “basic forms,” as he is comparing intervals within different sonorities and not ranking them. Bernard, Jonathan W. The Music of Edgard Varese. New Haven and London: Yale University Press, 1987: 75.}\]
ranking of the PCH found in a chord (again, always calculating the intervals from the bottom note), with the largest interval ranked the cardinality of intervals present in the chord, and the smallest interval ranked zero (0).

Returning to measure 766, the respective sizes of the ro-intervals present can be expressed by the following PCH-cseg <3,4,1,0,2> (see Example 3-2). The second chord (m.767) is comprised of the intervals 11, 1, 4, 10, and 6 semitones, with a PCH-cseg of <4,0,1,3,2>. The third chord (m.769) consists of the intervals 10, 11, 5, 1, and 4 semitones, and has a PCH-cseg of <3,4,2,0,1> almost exactly that of first chord, with the third and fifth intervals switched. This slight inexactitude might be a result of Feldman’s self-stated desire to work against listeners’ expectations (see chapter two of the present study). The final chord under consideration (m.772) consists of the intervals 10, 1, 3, 9, and 4 semitones, with a PCH-cseg of <4,0,1,3,2> exactly that of the second chord. In this way Feldman creates an alternating pattern of similarly constructed chords which may be expressed as $a\ b\ a’\ b$, due to the recurrence of PCH-csegs. This resembles other instances, as in the beginning measures of the piece (measures 17-18), in which Feldman presents two versions of the same idea in alternation.

The consideration of these chords as continuations of the original chord presented in 740 is further justified through the application of set theory to each of the distinct harmonies. As can be seen in Example 3-8, the first chord is a subset of each of the four chords examined above, three of which share the same intervallic structure—they have simply been re-voiced. Beyond the similarities found in the composition of the separate chords, a distinctly coptic voice leading can also be found between the chords. Four of the six voices move only by semitone, and pitch-classes 6, 7, and 8 appear as the bottom three notes of the first three chords under consideration. Example 3-9 illustrates the coptic distinction between the first and third chords by connecting with a line those pitches which are altered by transposition at an octave.

Judging from his sketches, it becomes evident that Feldman was most likely conscious of the similarity between the two chords, and that this kind of “alteration” in voicing was a

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60 The “odd-chord-out” here is the second one, found in m. 767, though it may be explained as a coptic alteration of the first, third and fourth chords, as set-classes 6-5 and 6-z41 share the same 5-note subset with the remaining note related by a half-step (7 to 8).
common compositional device for him. Example 3-10 shows an excerpt from the sketches; it becomes apparent from the lines Feldman has drawn between the notes of adjacent chords that he thought of them moving transpositionally by an octave, minor, or major ninth. In his pre-concert remarks before the American premiere of his 1982 piano piece *Triadic Memories*, Feldman states clearly his thinking process regarding “voice leading” in the piece, which has a direct bearing to the present situation. Describing the music as being made of minor and major seconds (and therefore also minor and major sevenths), he defines his chordal structures as “superimpositions” of these intervals.  

As can be seen in Example 3-11, Feldman gives a hypothetical chord of his own construction. Below this, he illustrates how an analyst might construe the chord’s construction as based on thirds and fifths. However, he writes below this his actual conception, wherein the chord is composed of a minor seventh from B3 to A4, a major ninth from D4 to E5, a minor ninth from A4 to B-flat5, and a diminished octave from B3 to B-flat5. Feldman describes the intervals that he superimposes as having “the old memory of a familiar triad”—hence the title of the piece—but without any formal function.

ANALYSIS OF MEASURES 150-173

Measures 150 through 173 pose an interesting case of conceptual continuation, especially when considered in conjunction with Feldman’s sketches for this section. Each measure contains a piano chord followed by two notes spanning interval 11 in the violin. Of the piano chords, five are distributed in such a way that a series of four six-bar patterns arise, to be discussed shortly. The violin plays one of two possible patterns each measure, which also figure

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62Hirata provides an analysis of this section, in which the piano and violin are depicted as either working together or against each other according to the alignment of the patterns described above. She relates measures 150 and 151 to the subsequent measures, considering them as a “point of reference,” and describes how the latter agree or disagree with the former. Where she sees the two instruments in opposition, this analysis considers them as a unit. Catherine Costello Hirata, *Analyzing the Music of Morton Feldman*, 2003.
into the larger six-bar patterns. Example 3-12 illustrates the piano chords and violin figurations found in these measures. There are two violin figurations, both of which involve a leap upwards of eleven semitones—#1 is F-flat to D-sharp, and #2 is A to A-flat. The piano chords show certain similarities of construction: they each contain a semitone, four of the five contain 5 semitones, and chords #1 and #3 appear to be the same chord. A consideration of the PCH-cseg however, presents an alternate interpretation, one in which these two chords can be seen as differing entities. An examination of the PCH-csegs given in Example 3-8 reveals that, from this perspective, #1 is more similar to #4, as #2 is to #3. In more basic terms, chords #1 and #3 share the same pitch classes, the D in the first chord\textsuperscript{63} being transposed down an octave in the third chord.

In order to facilitate the discussion of patterns arising in this section, a graphic representation of m. 150 through m. 173 is given in Example 3-13. The musical events occurring within these measures will be represented by the designations given in Example 3-8 above. Looking horizontally across each line of Example 3-13, certain patterns become clear. The piano chord presentations found in the six bars of 4/4 found beginning at m. 150 and m. 162, contain the pattern 1-2-3-2-4-5, referring to the chords discussed above with reference to Example 3-12. Similarly, the 6/4 sections beginning in m. 156 and m. 168 each contain the piano chord pattern 2-1-2-3-5-4. The violin patterns (comprised of the figurations given in Example 3-12) in the second 6/4 section (beginning in m. 168) are exactly opposite that of the first 6/4 section (beginning in m. 156). That is, the violin pattern spanning measures 156-161 may be described as V1-V2-V2-V1-V2-V2, while the pattern found spanning mm. 168-173 is V2-V1-V1-V2-V1-V1. In this way these measures exhibit an out of time symmetry (being separated by six measures), as the size and form of their contents correspond exactly, but their presentation is exactly opposite. The violin patterns of the 4/4 bars begin the same, but continue in the next bars in opposite, or mirror, alternation as was seen in the 6/4 bars just discussed.

\textsuperscript{63}This chord (in m. 152) serves a double meaning in this study due to the different analytical angles from which it will be observed. In the consideration of the patterns found in this section, the chord will be considered as distinct from the one found in 150 due its registral disposition. Later, it will be referred to as an alteration of the first chord due to voice leading considerations, i.e. the octave displacement of the D.
These slight inconsistencies may be considered as representative of coptic alteration (also of coptic symmetry in the case of the 6/4 bars), though it is unlikely that it was a conscious decision on Feldman’s part.

Considering his sketches for the material found in mm. 150-173, Feldman’s apparent original conception of the ordering of these ideas differs greatly from that shown in Example 3-13. In the sketches (recreated in Example 3-14) there are eight measures that correspond exactly with mm. 154-161 in the printed score. Above these measures in the sketches is added an additional violin line, which is found in the printed score at mm. 166-173. This suggests that Feldman, having created these eight measures, expanded the material backwards to create the first four measures of the section under consideration (mm. 150-173). Following this line of speculation, he would then have expanded the material to create the four measures in between the two sketched sections, and finally, extended it to fill in the last measures of the page. Interestingly, this would suggest that the relatively (for Feldman) clear patterning illuminated in Example 3-13 was merely a result of an entirely different method of composition, not the organizing force of the section.

Having elucidated the patterns present in measures 150-173, and also what is present in the sketches for these measures, it is necessary to move backwards in the score to measure 141, from which it may be appropriate to begin a consideration of the conceptual continuation occurring on this page. Measures 141 through 149 are given in Example 3-15, and are also found in the sketches for this piece with minor alterations made for the final score.\footnote{The numbers given in Example 3-15 are Feldman’s, and somewhat curious considering the order of the measures are the same in sketch and score alike. Chord #3 is transposed down an octave in m. 150 (my chord #1), making it chord #4 in Example 3-14, suggesting that the numbered chords in Ex. 3-15 do not correlate to those in Ex. 3-14.} Here Feldman begins with an harmonic semitone in the piano, and a descending melodic semitone in the violin which is repeated for the next eight measures. The piano, however, progressively adds notes at either a semitone or major seventh, moving from trichords to tetrachords in m. 146, extending the material of m. 141. This extension continues through m. 150 when the second violin note is transposed up an octave while the piano chord from m. 147 appears transposed...
down an octave. At this point begins the second phase of conceptual continuation, as in m. 151 Feldman presents a new idea. This second idea is similar to the idea found in the measure before it, meaning there is still a piano chord followed by an ascending seventh in the violin. However, there are two distinct differences which set the two apart, which are the introduction of three new pitches (G, and A-flat in the piano, A and A-flat in the violin), and a shifting of the violin register up over an octave. At this point the first idea returns, coptically altered as mentioned above, followed immediately by an exact restatement of the second idea. As discussed above, new chords are introduced in m. 154 and m. 155, and Feldman blurs the lines separating the two ideas when they reappear in mm. 156-159 by switching the violin pattern with which they were originally stated.

At this point in the section, any attempt at the conceptually continuation of one idea over another seems to be surrendered to the realization of different permutations of the patterns already shown in Examples 3-14 and 3-15. Measure 174 interrupts this realization with six beats of silence, thus beginning a clearly defined instance of CC3 in which silence alternates for seven measures with three statements of the material found earlier. That is, m. 175 first appeared in m. 160, m. 177 in m. 152, and a restatement of m. 175 in 3/4 in m. 179. Page four ends with silence, and is immediately followed by entirely different material, seemingly precluding any consideration of conceptual continuation into page five. As with the analysis of measures 740-772, some of the material discussed here originates previously beginning in m. 85, then jumping to m. 91 and then again to m. 136 (see Example 3-16). Close study of the score reveals that many of its measures (often groups of measures) reappear much later either intact or with slight alterations such as octave displacement or enharmonic note interpretation. The significance of such greatly delayed reiterations, though surely beyond the capabilities of most listeners, might embody an even deeper level of conceptual continuation spanning the sections of the piece. We shall now examine one such instance.

ANALYSIS OF MEASURES 799-855

Pulling back from the score, this study will now consider a larger portion of the music,
found in Example 3-17. The perspective being more macroscopic than in the previous analyses, it is now possible to observe how preexistent material from different parts of the score may coexist within a new, later context. The term “strand” will be used to describe a distinct section of music in coexistence with other distinct sections within a certain musical time span. In the following analysis we will consider the context in which the material of measures 766 through 770 (examined above), reappear intact fifty measures later at measure 820, where they are now heard as a distinct musical strand among several. Reference to a graphic representation of the measures under consideration, found in Example 3-18, may prove helpful.

The first musical strand of this section begins in m. 799 and ends in m. 810; however, as was seen in the case of the material found in 747 (called Idea 3), this strand is actually first presented in mm. 361-372. The repeat signs placed at the beginning of m. 799 and the end of m. 803 render the strand 17 measures in length. Feldman sets up a regular pattern of time signatures in these measures: 7/8–3/8–2/4–3/4, which to the eye appears to occur three times total. However, Feldman obscures this regularity for the listener by interjecting the repeat signs mentioned above. Within the 7/8 and 2/4 bars the piano plays a succession of four notes, specifically D-flat4 followed by E-flat5 which is then followed by C4 and D4. The violin articulates what is essentially an upper neighbor figure, beginning on A5 on the last beat of m. 800, followed by an harmonic B-flat5 in m. 803, and ending on G-double-sharp5 in m. 809.

At this point Feldman introduces a second, more complex strand in m. 811. There are two components to this musical unit, introduced in separate measures and then combined in subsequent measures. Measure 811 gives the first component, a pair of upwards moving piano chords which are the dyads B/F and C/G-flat; this is followed in m. 812 by the second component, a chromatic melodic violin figure G4-E-sharp4-F-sharp4 that is repeated unchanged through m. 817, and again in m. 819. The piano chords, however, experience elaboration in the addition of two notes per measure, so that by m. 815 the two-note chords have become eight-note chords. The process may be called additive, as the chords of m. 811 are found at the very top of the pairs of chords presented throughout mm. 813-817. Feldman adds ie9, D-sharp3/C4, below the first dyad in m. 813, and another diminished 5th below the second, G3/D-flat4. The D-sharp of the first dyad seems out of place, as the rest of the notes from the first dyad simply
move a half step to reach the notes of the second dyad. Similarly, the individual “voices” of the first and second dyads in m. 814 each move a semitone. Feldman moves the bottom notes added in m. 813 up an octave when he includes them in the m. 814 chords (except for the D-sharp3, which moves to F-sharp4), so that C4 becomes C5 in the first chord, and D-flat4 and G3 are found as D-flat5 and G4 in the second chord. Below both of these chords Feldman adds a tritone, A-flat3/D4 in the first, A3/E-flat4 in the second. Finally, the chords of m. 814 are imported intact in m. 815, with yet another tritone added beneath the collection (C-sharp3/G3 and D3/G-sharp3).

An inspection of the score reveals that mm. 813-817 form a palindrome, in terms of both piano chords and level of repetition. The extension of the chords in m. 813 through m. 815 is reversed in m. 816, so that m. 816 is m. 814, and m. 817 is m. 813, and the repetition levels follow suit (4x’s-5x’s-6x’s-5x’s-4x’s). Besides this, mm. 811-812 are repeated in mm. 818-819, creating the feeling of a ‘closed’ strand. So far the listener has been presented with two very different strands, the first lasting a total of 17 measures, and the second a total of 36 measures. Reappearing in this new context as the third of as many strands now coexisting within listener’s memory are mm. 766-770, repeated exactly at mm. 820-824. This strand is the shortest of the three, lasting fifteen measures total, but perhaps this is because the material was already planted in the listener’s memory fifty measures earlier. Therefore, after a relatively short revisiting of this material, Feldman reinstates the second strand at m. 825 in extended and altered form. This is the only strand of the three which is not present at some previous point in the score, which may explain why it receives the longest time span.

The extension of the second strand involves firstly the respelling of the violin notes, where G becomes A-double-flat, and F-sharp becomes G-flat (the E-sharp is retained); also, the notes are displaced upwards by two octaves. Feldman elongates the strand by adding 12 measures total as two pairs of measures repeated three times. The first pair is added to the beginning of the strand (mm. 825-6), in which the piano dyads are present, but the subsequent measure of violin notes is replaced by silence. The second pair, identical to this description, is added at the end of the strand in mm. 836-7. Another difference between this strand and its predecessor (which began in m. 811) is the construction of the larger chords located in the
middle of the strand. Comparing the analogous chords (found in mm. 813-817 and mm. 829-833), Feldman has simply split the original chords in half and swapped their two parts. Hence, the bottom half of the first chord in m. 813 is transposed up two octaves and made the top half of the first chord in m. 829. This “swapping” process is illustrated in Example 3-11. Measure 838 presents the third and final exact recurrence of mm. 766-770, punctuated in m. 843 by a measure of silence. Here, at the bottom of page 19 (mm. 844-855), Feldman brings back the first strand under consideration, this also its third exact recurrence in the score (this material is then extended at the top of the last page).

CONCLUSION

The above discussion of mm. 799-855 illustrates the manner in which Feldman presents the listener with disparate strands of musical material in close alternation. This alternation occurs over the largest span of time so far considered in the analysis. Beginning with a consideration of how Feldman extends the material presented in the first four measures of the piece, we have subsequently looked at how Feldman presents and extends multiple musical ideas simultaneously. The observation of altered, or coptic, symmetries present in these ideas were essential to the discussion, as they appear to have been of importance in Feldman’s compositional method. Therefore, we may view For John Cage not as randomly pieced together musical thoughts over a large span of time, but as ordered and extended sets of ideas with their roots in the visual representation of coptic symmetry. Conceptual continuation allows for the analysis of sections of music in which the extension of an idea occurs in varying stages and is therefore retained in the listener’s memory over a short period of time. As stated earlier, the form of this piece is not readily apparent, though the large scale repetitions to be found point to something other than “through-composed.” An illumination of the large-scale organization of For John Cage is ample fodder for future study.
Example 2-1. Excerpt from *Triadic Memories*
(continued) Example 2-1. Excerpt from *Triadic Memories*

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**coptic alteration**

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Example 2-2. Coptic symmetry in the first 12 measures of *Triadic Memories*
Example 2-3. Excerpt from *Piano*
Example 2-4. Excerpt from *Spring of Chosroes*
Example 3-1. The opening measures of *For John Cage*
Example 3-2. Reordering of mm. 53-84
*Note that the “Graspable” Idea is comprised of two parts, Oscillating Idea 1 (O. I. 1) and Oscillating Idea 2 (O. I. 2).

Example 3-3. A graphic representation of mm. 53-84 (drawn to resemble ordering in Example 3-1)
### Example 3-4

A graphic representation of mm. 734-762 (refer to Examples 3-5, 3-6, and 3-7 for notated Ideas)
Example 3-5. *Idea 1* (mm. 734-739)

Example 3-6. *Idea 2* (m. 740)

Example 3-7. *Idea 3* (mm. 747-751)
Example 3-8. Piano chords of mm. 740, 766, 767, 769, 770, 772

Example 3-9. Coptic distinction between the piano chords of mm. 766&769

Feldman’s conception of the connection between notes of adjacent chords by octave, minor, and major ninth.

Example 3-10. Excerpt from the sketches
Example 3-11. From the program notes for *Triadic Memories*

Example 3-12. Piano chords and violin figurations of mm. 150-173
Example 3-13. Graphic representation of mm. 150-173
Example 3-14. Excerpt from the sketch for mm. 150-173
Example 3-15. Score for mm. 141-173
Example 3-16. Measures 85, 91, 136
Example 3-17. Score for mm. 799-855.
Example 3-18. A graphic representation of mm. 799-855 (drawn to resemble score given in Example 3-17)
Example 3-19. “Swapping process”
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