UNIVERSITY OF CALIFORNIA SAN DIEGO

Interpreting Through Ambiguity: Examining Performer Agency in Morton Feldman's Works for Cello

A Dissertation submitted in partial satisfaction of the requirements
for the degree Doctor of Musical Arts

by

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Professor Clinton Tolley

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University of California San Diego

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ABSTRACT OF THE DISSERTATION

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Doctor of Musical Arts in Contemporary Music Performance

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Inevitably, the act of score interpretation will lead to ambiguities and possibilities of nuance that are not accounted for by the composer. Throughout the oeuvre of Morton Feldman, the composer uses this lacuna to engage the performer's interpretative capacities in unexpected ways. In the graph pieces, this is explicitly done by dispensing with traditional pitch assignments and instead employing only 3 general ranges – low, middle, and high. Moreover,

these ranges aren't delineated by the composer either – that is also left up to the interpreter. In his unpublished work for two cellos written for a short film about abstract expressionist painter Jackson Pollock, we must confront a puzzling relationship between the one extant recording of the piece that was done in consultation with Feldman and a score which does not seem to correlate. In this example, I consult what has been written about the work and compare it to the available documents. I posit an alternative to a more traditional interpretation in which I suggest that the 2 cellos were not ever intended to be metrically aligned, and that this might be an early example of the compositional devices we find in later, more sophisticated works of his such as *Crippled Symmetry.* Finally, we examine his confounding use of accidentals in this later works – in particular, double sharps and double flats – using *Patterns in a Chromatic Field* as the main example. I consider what the purpose of this might be and examine possible strategies to sift through the semantic confusion. I connect the overarching throughlines I uncover through this examination of works that are quite disparate in time and intention and consider what they might mean for a performer.

INTRODUCTION

My trajectory in experimental music has been pervaded by an inclination to reconcile my idiosyncratic tastes with my classical training. My penchant for the avant-garde dates to a relatively young age for what could be considered a niche interest. Alongside my weekly classical cello lessons, chamber music, and youth orchestra, I was digging deep with the help of mid-2000s internet blogs and suspect file sharing practices – and the aid of a few likeminded friends. At Ithaca College, where I completed my undergraduate degree, I was fortunate to have mentors who encouraged me to specialize in contemporary music, though that resulted in mostly performing works written before 1970. I went onto the University at Buffalo, where I pursued my Master's Degree. The program intrigued me because of its long history at the vanguard of Western music through the now-defunct Center of the Creative and Performing Arts. Feldman's leadership from 1972 until his death in 1987 left the city with a formative cultural legacy. By the time I arrived, this legacy primarily survived within the composition program but a few wayward performers like myself found their way into assistantships, which allowed us a large amount of unstructured time to pursue passion projects through individualized means. From there, I connected to the international community of composers and performers invested in pursuing avant garde music in institutional contexts through my experiences at the Darmstadt Ferienkürse, three summers as a fellow at the Lucerne Festival Academy founded by Pierre Boulez, and the pursuit of my doctorate at UC San Diego. UCSD, similar to Buffalo, had a long history as a haven for like-minded artists, with a robust program was more robust and ample resources.

Alongside these experiences working within institutions, around the time I finished college in Ithaca, I became invested in what could loosely be referred to as DIY or underground music, which became the main forum for improvisational practices. I was particularly drawn to

this way of working because it allowed me a space where I could explore technique on my own terms and ask questions of any latent pre-conceptions that might have been taken as a given in institutional pedagogy. This experience spurred an inner dialogue where my experiences interpreting scores and my personal explorations could reflect upon one another. What did it mean to play music composed by others? What did it mean for my personal practice? And, most germane to this inquiry, how does music notation fit into the equation?

Music notation is inherently an inadequate tool for sonic representation. How could we possibly expect aggregates of symbols to fully represent the complexity of sound? To even begin to do so, we are necessarily interpreting from a priori understandings of how these symbols function in performance. The work of Morton Feldman often directly targets these understandings and galvanizes the notation so as to cast doubt on our baseline assumptions of score interpretation, rarely leaving us with a new set of sonic associations in its place. This results in an intentional ambiguity with respect to how the performer is supposed to understand the notation. In my writing, I will examine 4 works by Feldman: 2 from 1950 and 1953 that utilize a unique graph notation, 1 unpublished work written in 1951 for a short film about Jackson Pollock, and 1 major work for cello and piano from 1981. All these works leave certain elements of interpretation up to the performer, though the reasons and motivations vary.

My goal is not to draw overarching narratives or associations between these works, though certain traits that potentially shed light on one another do arise. As an inherent condition of interpreting through intentional ambiguity, any conclusions I am drawing are largely inferential. My hope is that what I discuss here will offer some useful frameworks for performers to engage with questions of interpretation in Feldman's work – frameworks that don't require us

to flatten out our decision-making processes and instead engage with the slippery and craggy nature of Feldman's notation in a productive manner.

Chapter 1 GRAPH PIECES FOR SOLO CELLO

We begin our inquiry with 2 works from the beginning of Feldman's career: *Projection 1* from 1950 and *Intersection 4* from 1953. These pieces both utilize an unconventional notation that represents sounds on a grid, showing when sounds occur in time and the basic characteristics of these sounds. These characteristics are represented in terms of register, which is delineated only as high, middle, and low, and timbre – the main categories being pizzicato (plucked), arco (with the bow), and harmonics. About the development of this graph notation, Feldman states: "The discovery that sound *in itself* can be a totally plastic phenomenon, suggesting its own shape, design and poetic metaphor, led me to devise a new system of graphic notation."[1]

This sentiment suggests that Feldman considered conventional notation as interference with one's ability to hear the "sound in itself." Feldman speaks directly to this motivation: "My desire here was not to 'compose,' but project sounds into time, free from a compositional rhetoric that had no place here. In order not to involve the performer (i.e., myself) in memory (relationships), and because the sounds no longer had an inherent symbolic shape, I allowed for indeterminacies in regard to pitch."[2] By abstracting the notation, Feldman intends that listener and performer shed these latent associations that make up the profile of any "inherent symbolic shape"[3], which a more specific constellation of sounds might suggest, and free both parties to embark on a "totally abstract sonic adventure."[4]

Reference to 'plasticity' suggests that sound, for Feldman, has a moldable quality. However, directly following the use of that term, Feldman links it with the ability of "sound *in*

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[1] Morton Feldman, *Give My Regards to Eighth Street*, "...Out of 'Last Pieces'" (1965), p.19

[2] Morton Feldman, *Give My Regards to Eighth Street*, "Liner Notes", p.5-6. This quote was said specifically in reference to *Projection II* but I think it's safe to assume it can be applied to any of the graph pieces.

[3] Ibid.

[4] Morton Feldman, *Give My Regards to Eighth Street*, "Liner Notes", p.6

itself"[5] to suggest "its own shape, design and poetic metaphor"[6]. So this moldable quality isn't something that results from performer intervention. Instead, it depends on our ability to perceive the sounds without the encumbrance of outside associations, to hear the sounds without the situating them in the network of memory: "When you are involved with a sound *as a sound,* as a limited yet infinite thought to borrow Einstein's phrase, new ideas suggest themselves, need defining, exploring, need a mind that knows it is entering a living world not a dead one."[7] So this graph notation is utilized because Feldman sees conventional notation as deficient in its ability to engage with totally new sonic structures. Layers of history are sedimented in conventional notation, subtly encoded in a performer's interpretations vis a vis their memory of how the notation correlates with sounding result. To eschew conventional notation and instead abstract sonic representation from the historical baggage of conventional notation is to grapple with the sound as a physical phenomenon with plastic properties - "a mind that knows it is entering a living world not a dead one."[8] One must also consider the listener - in particular, the stated desire to not involve "poetic metaphor"[9] suggests that anything suggesting recognizably traditional harmony or musical gesture is likely inappropriate.

Memory is what governs our perception of relationships and informs how we categorize sounds and derive meaning from the relationships between them. The graph notation significantly hampers the intervention of memory, hamstringing its ability to subconsciously imbue perceptible musical relationships between the sounds. Indeed Feldman clearly indicates that he considers traditional composition to be a practice that is invested in these relationships.

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[5] Morton Feldman, *Give My Regards to Eighth Street*, "...Out of 'Last Pieces''' (1965), p.19
[6] Ibid.
[7] Morton Feldman, *Give My Regards to Eighth Street*, "Conversations without Stravinsky" (1967), p.60
[8] Ibid.
[9] Morton Feldman, *Give My Regards to Eighth Street*, "...Out of 'Last Pieces''' (1965), p.19

Thus, the sounds are simply projected into time, free of historical burden and metaphor. The graph notation wrangles away the sound from this dead weight by attempting to circumvent memory on the performer's end.

I would like to address one potential point of seeming contradiction - in the one quote, Feldman states that he wants the sounds to suggest their own "shape, design, and poetic metaphor"[10] and in another quote, he says he wants the sounds to be presented "free from a compositional rhetoric that had no place here"[11] and attributes the indeterminacy of pitch to avoid the influence of memory and its governance of how we perceive sonic relationships, as the sounds no longer have a symbolic shape. How can sounds suggest their own poetic metaphor and yet have no association with memory or symbolism? Is poetic metaphor in sound not dependent on some kind of symbolism? I don't think there is a clear answer here as it pertains to Feldman's thinking, but both quotes assert one common element, best summed up as a desire to hear "sound *in itself*" - to perceive the qualities inherent in the sound and not foisted upon them by historical and emotional associations. In this way, Feldman hoped to breathe new life into sounds made from instruments primarily designed to play antiquated music.

Having analyzed some of Feldman's motivations, let's turn to what the range and timbre indications might suggest. There are some aspects of *Intersection 4* that are quite unique to that piece, but we will start by focusing on what is shared between the two pieces. The timbre indications shared in both pieces are pizzicato, arco, and harmonics. These terms are largely straight forward and are learned by string players in the early stages of their training. There may be some question as to whether it matters if harmonics are played pizzicato or arco. However, the

[10] Morton Feldman, *Give My Regards to Eighth Street*, "...Out of 'Last Pieces'" (1965), p.19
[11] Morton Feldman, *Give My Regards to Eighth Street*, "Liner Notes", p.5-6

range of harmonics that are really perceptible as harmonics is quite limited when played pizzicato - in particular, harmonics that are too high usually sound quite percussive when plucked and false harmonics, created by pressing down the string with a one finger and touching lightly at a harmonic node above that finger (usually the 4th partial, sounding 2 octaves above the pressed note), are only really effective in the lower ranger. Additionally, there are harmonic notations in both graph pieces that clearly show a sustained harmonic - again, clearly implying that it is played with the bow. Considering this, I think it makes more sense to play all harmonics with the bow.

Range is a trickier question. In all 5 pieces that make up the *Projection* series, as well as the first 2 in the *Intersection* series, the same remark is made about range: "The limits of these ranges may be freely chosen by the player." While this could plausibly be viewed as an opportunity for the performer to exert agency and make an individualistic interpretive decision, it is prudent to remember Feldman's intentions with the graph notation that we just parsed out. For instance, we could just choose one note for each range - perhaps even 3 notes of a close-voiced major chord. But the clear articulation of a major chord seems counterintuitive to Feldman's goal of stripping the sounds of their "inherent symbolic shape"[12], drawing attention away from a dehistoricized listening and moving our mind's ear closer to the plethora of historical associations potentially implied by traditional use of pitch. In spite of this, I will use traditional notation to articulate how one might delineate the ranges. While I could, of course, show it as frequency values on a graph, musicians aren't trained to internalize frequency in this way - we instead use pitches which tie into the harmonic and melodic logic of Western classical music. Considering that, perhaps it is more useful and immediately understandable when we talk about

[12] Ibid.

range in terms of pitch. Moreover, there is no indication that thinking about frequency as something that is abstracted from pitch was an important part of Feldman's concept of sound. In fact, the prevalence of piano in Feldman's graph music suggests that 12 tone equal temperament is still the primary backdrop for Feldman's relationship with pitch.

Instead, I would suggest two frameworks that I believe to be useful for examining our potential options – one that takes examines the options from a quantitative perspective and one that prioritizes qualitative characteristics, respectively: equal distribution of range across the total range of the cello and consideration of the most salient qualities of low, middle, and high range sounds. The first is a useful tool for thinking about range in light of the widest range of possibilities on the cello. Defining our boundaries of total range already requires us to consider two paths. Because the range of harmonics is generally much higher than that of conventional, or natural, notes, it is also useful to have a separate range for harmonics, which we can consider independently and with consideration of overlap with the natural range of the cello.

For natural notes, I delineate the lowest note on the cello as the lowest note in standard tuning - the open C string. The highest note is somewhere around the end of the fingerboard on the A string – for ease, I mark this as a high E [Figure 1]. For harmonics, our lowest note is the C an octave above our lowest natural note. Theoretically, harmonics go infinitely high, but for the sake of practicality I set the outer limit at E6 [Figure 2]. If we were to divide the total range into 3 equal parts for non-harmonic notes, we would roughly have the following ranges shown in Figure 3. We can also consider it a given that natural and false harmonics that fall within these ranges are appropriate as well.
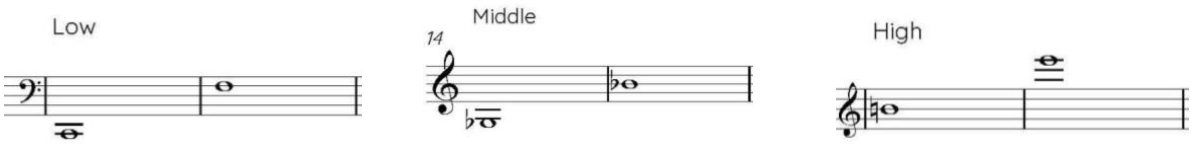


Figure 3: Equal distribution of range across natural notes on the cello
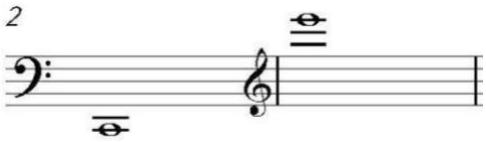


Figure 2: Total range of natural notes
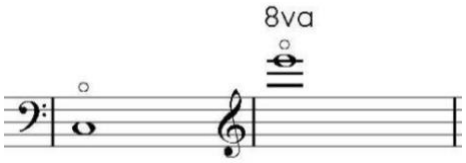


Figure 1: Total range of harmonics

The second framework seeks to articulate what qualitative properties might be considered characteristic of each of the 3 ranges. It is useful to consider the concept of 'tessitura' when assessing this. 'Tessitura' is the range in which a voice or instrument is in its most comfortable and characteristic range. While I don't think that idiomatic instrumental writing is a preoccupation of Feldman's, what is comfortable on an instrument largely has to do with resonance and ability to project in a given range, which gives that range its unique timbral quality. So it is useful to consider what best exemplifies each range on the cello. On the cello, the lowest range is easily identifiable, and the highest range is quite distinct in its quality. The middle range requires further consideration - despite the cello's history as a kind of bass instrument, it can actually go quite high, however it also has a history as a melodic instrument, especially in romantic music. As a result of the cello's ability to inhabit multiple roles, I would argue that the tessitura of the cello is actually quite wide. Only the high range falls outside of it.
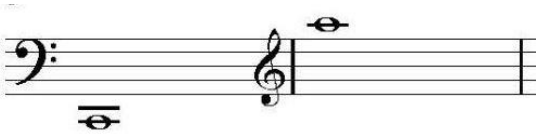


Figure 4: The tessitura of the cello

Figure 4 suggests one possible framing of the cello's tessitura. So the middle of the whole range when considering total pitch span may still 'sound' high in relation to the range that most people associate the cello with. I favor this perspective because it allows the structure to present itself more clearly and captures the plastic qualities of each range more clearly. An overly literal approach along the lines of equal distribution across the total range of the cello could result in notes that are actually quite close together. While this may technically abide by the ranges the performer has "freely chosen", we hinder the listener's ability to perceive the differentiation. The piece will not sound the way it 'looks' - this may seem irrelevant now, but as we continue to work through the other works considered here, it will become apparent that the visual and semantic effect of notation on reification in execution is a primary concern of Feldman's, driven, in part, by his relationship with his peers in the painting community (Pollock, Rauschenberg, Mondrian, Guston, etc.).

In the middle range of natural notes, I tend to prefer pitches a bit lower with respect to the equal distribution of ranges shown in Figure 3, towards the bottom of the A string, as these have a timbral quality that is quite distinct from both the highest and lowest notes. A bit brighter but still warm - staying away from any higher range that lean even slightly towards a shrill or sharp tone. For the low harmonics, I stick with the 2nd partials on the C and G string - these have an openness and depth that is distinct from any other harmonics. For middle harmonics, I generally stick with false harmonics lower on the C and G strings, though low natural harmonics on the D and A strings also work if you need to move more quickly. High harmonics I aim for above the

fingerboard, though again a quick option closer to the lower and middle ranges may be preferable at times - for this situation, I use false harmonics on the A string [Figure 5].

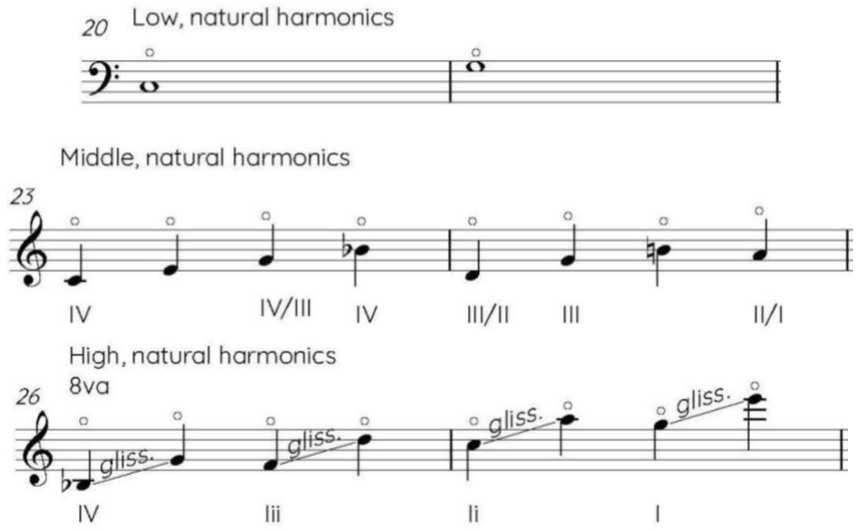


Figure 5: Suggested natural harmonics for each range.
Roman numerals indicate strings from high to low.

Projection 1 [Figure 6], is the first of Feldman's works written with the graph notation. Each timbre has its own staff. The instructions clearly imply a regular pulse, though not a terribly strict one: "Duration is indicated by the amount of space taken up by the square or rectangle, each box being potentially 4 icti. The single ictus or pulse is at the tempo 72 or thereabouts."[13] Ironically, despite the stated intentions of the graph notation, the material conditions of the instrument and the training of the player can still reinforce traditional pitch conceptions despite best efforts to destabilize them. An advanced player has likely spent hours playing scales and arpeggios which give us necessary muscle memory training to play quickly and accurately in those contexts. This training is intended to result in a phenomenon I refer to as 'hearing with my hands' - the pitch I am hearing in my inner ear when I play is automatically preparing my muscles and nerves for execution. Instead, in my interpretation in audio example 1, I try to think

[13] Morton Feldman, *Projection 1*.

in terms of general strategies as outlined above, but to subvert that training is difficult and disorienting. In my interpretation, I try to avoid repeating notes as well, so that no particular organizational structure as dictated by pitch can be perceived. But, oftentimes, I inadvertently return to the same pitch in the same range several times, and I have to actively make intentional decisions about pitch to avoid this. How to navigate this paradoxical relationship between Feldman's motivations and the exigencies of the trained cellist's execution isn't at all clear.

In *Intersection 4*, composed in 1953, we see marked evolution in Feldman's approach [Figure 7]. Instead of giving different staves for each timbre, we have one staff and different markings within the range of the given ictus. The performance note specifies that all sounds are to be played pizzicato, unless stated otherwise – a diamond to show harmonics, an 'A' to indicate arco, and a new marking: 'P' or 'PONT', usually the latter, is used as shorthand for 'ponticello', meaning to play near the bridge of the cello. This is a sound that is generally characterized as having a weaker or inconsistent presence of the fundamental tone and more presence of overtones. There is some question of whether harmonics are intended to be pizzicato or arco. Like in *Projection 1*, we have some harmonic markings that clearly indicate sustain, which would intuitively suggest that they are played with the bow. And in the performance notes, it states "All sounds are pizz. unless otherwise notated. [diamond symbol] har.; A arco; etc. etc."[14]. The specification of the harmonic as a sound category distinct from pizzicato combined with the extended rectangle harmonic notations which clearly indicate arco suggests to me that all harmonics are arco.

One stumbling block for the performer might be Feldman's phrasing with regards to the numbers: "Numbers indicate the amount of sounds to be played simultaneously (if possible)."

[14] Morton Feldman, *Intersection 4*

Are ‘sounds’ meant to refer to distinctly different pitches? Or are multiple attacks of the same note considered multiple sounds? Can the sounds be simultaneously played notes, like chords on the guitar, or do they need to be individually articulated? Considering the terminology in the piano graph pieces, we can surmise that sounds likely refer to ‘notes’, though stripped of the historical implications of that categorization. We can also infer, based on the interpretation of *Intersection 2* & *3* from Feldman’s close friend and collaborator David Tudor, that chordal playing is desirable. Indeed, in *Intersection 3* [Figure 8], there are sometimes multiple numbers in a box, supposedly suggesting distinctly articulated ‘chords’. *Intersection 3* is by far the most virtuosic of the graph pieces, so much so that Tudor, usually quite adept at accommodating new manners of notation, had to create a conventionally notated version to play it satisfactorily. This document clearly indicates that ‘sounds’ correlates with a traditional understanding of ‘notes’ - in fact, frequently in Feldman’s graph pieces for solo piano, he replaces ‘sounds’ for ‘keys’, directly connecting it with the physical mechanism itself.

In *Intersection 4*, the performer is asked to fit many sounds into a relatively short time frame. Unlike *Projection 1*, where there is ample time for the cellist to consider the various possibilities, the cellist does not have that luxury in *Intersection 4*. The performance directive to play notes 'simultaneously (if possible)’ can be taken to mean ‘as fast as possible’ in many instances. As a result, interpretation hinges much more so on what is possible, which limits the role of interpretive decision making. Open strings and natural harmonics become more prevalent simply out of necessity – they don’t require nearly as much preparation. Left hand pizzicati enable the cellist to play many notes very quickly. Additionally, the density and speed of the piece helps prevent symbolic shapes from clearly appearing to the listener or the cellist.

PROJECTION 1

FOR SOLO CELLO

TIMBRE IS INDICATED: ◇ = HARMONIC; P=PIZZICATO; A=ARCO

RELATIVE PITCH (HIGH, MIDDLE, LOW) IS INDICATED: $\overline{\square}$ = HIGH; $\underline{\overline{\square}}$ = MIDDLE; $\underline{\square}$ = LOW. ANY TONE WITHIN THE RANGES INDICATED MAY BE SOUNDED. THE LIMITS OF THESE RANGES MAY BE FREELY CHOSEN BY THE PLAYER.

DURATION IS INDICATED BY THE AMOUNT OF SPACE TAKEN UP BY THE SQUARE OR RECTANGLE, EACH BOX (⁞ ⁞) BEING POTENTIALLY 4 ICTI. THE SINGLE ICTUS OR PULSE IS AT THE TEMPO ♩=72 OR THEREABOUTS.

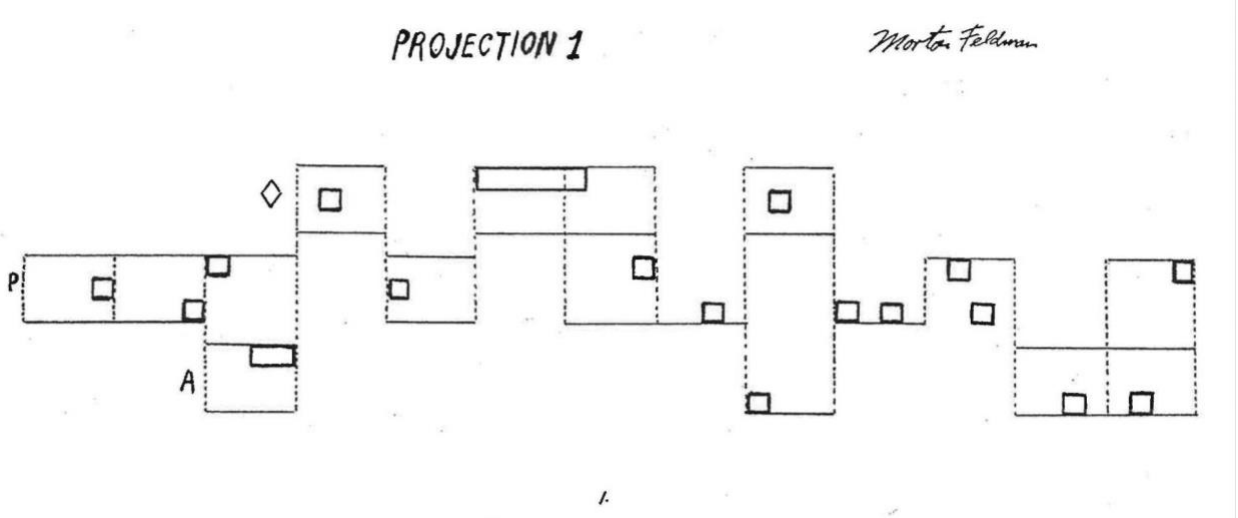


Figure 6: *Projection 1* instructions and excerpt

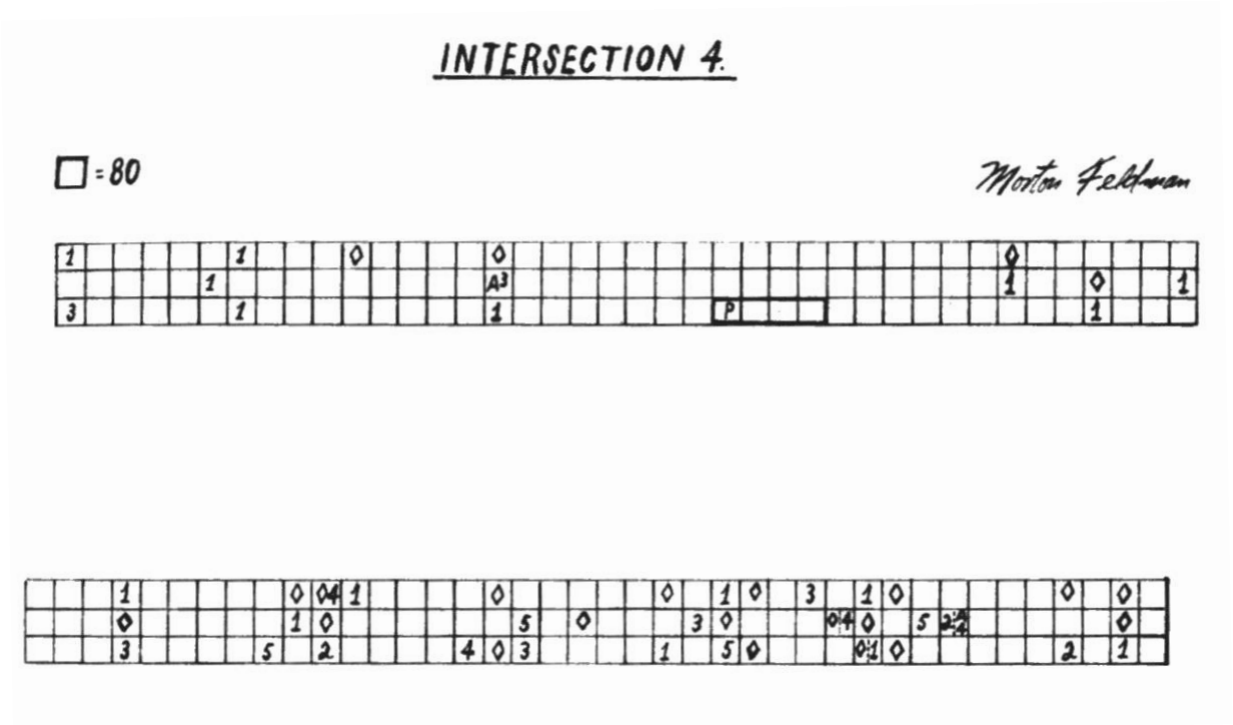


Figure 7: *Intersection 4*

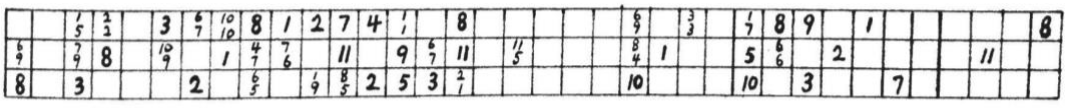


Figure 8: Excerpt from *Intersection 3* for solo piano

One strategy the cellist might employ is to find hand positions that maximize the amount of notes you can play in a given register, especially if we take a slightly broader approach to register than we might in *Projection*. In the middle register we could employ a spread position with our 3rd finger on the bottom string, our first on the middle, and our thumb on the top strings. For bowed harmonics in the high register, we can play up to 4 natural harmonics very easily above the fingerboard. Barring across the strings with the first finger in the lower register is effective for easily varying the pitches and while playing triple stops in quick succession. Barring with the first finger or thumb is useful for double stops in any register. You can hear these strategies in practice in audio example 2.

Chapter 2 FILM MUSIC FOR 'JACKSON POLLOCK'

I would like to now turn our attention to Feldman's work for 2 cellos, written for a short film about Jackson Pollock. Before we dive in, it would be useful to give a quick disclaimer. This piece was unpublished and there is no clearly authoritative version. There are 2 versions (Figures 9 & 10) of the score, another page of music for the last movement supplied by the cellist on the original recording, Daniel Stern, and the original recording itself. None of these documents are consistent with one another. Daniel Stern also mentions performing off of "two separate scores, one for each cello part"[15], shown in Figure 11. If this recollection is accurate, there are even 2 individual parts that have yet to be accounted for. The recording itself is puzzling. If you follow along with the score while listening, it is quickly apparent that the 2 cellos are not aligned at all. There is a chunk of material that appears in the final soundtrack that isn't notated on any of the scores, and one of the cello parts is missing altogether in the recording of the final movement. The playing is a bit rough as well - it's unclear what is a compositional decision made in the moment of collaboration and what's a potential mistake or perhaps a consequence of limited time or resources to put it together. My goal is to use the available sources to piece together how Feldman might have shaped the constituent elements presented in the multiple documents available. I will weave a path between quotes to develop a sense of context that will better inform interpretive decision-making. At this point, I would recommend viewing the original film, listed as Video Example 1.

Written in 1951, in between the composition of the two graph pieces discussed above, Feldman was given an important opportunity - filmmakers Hans Namuth and Paul Falkenberg

[15] Daniel Stern, "Morton Feldman's *Glass Sequence*", 2

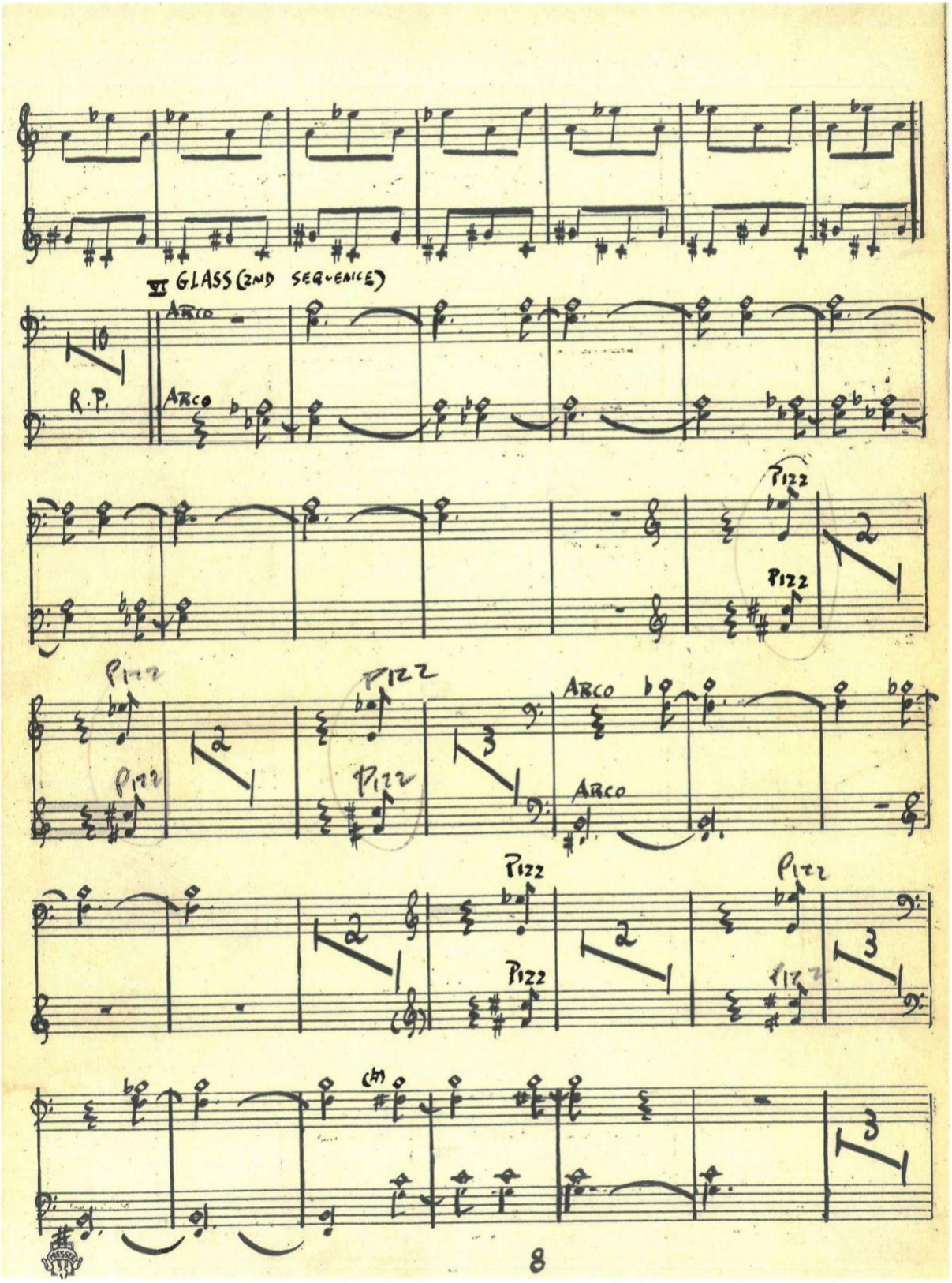


Figure 9: Version 1 of *Film Music for 'Jackson Pollock'*

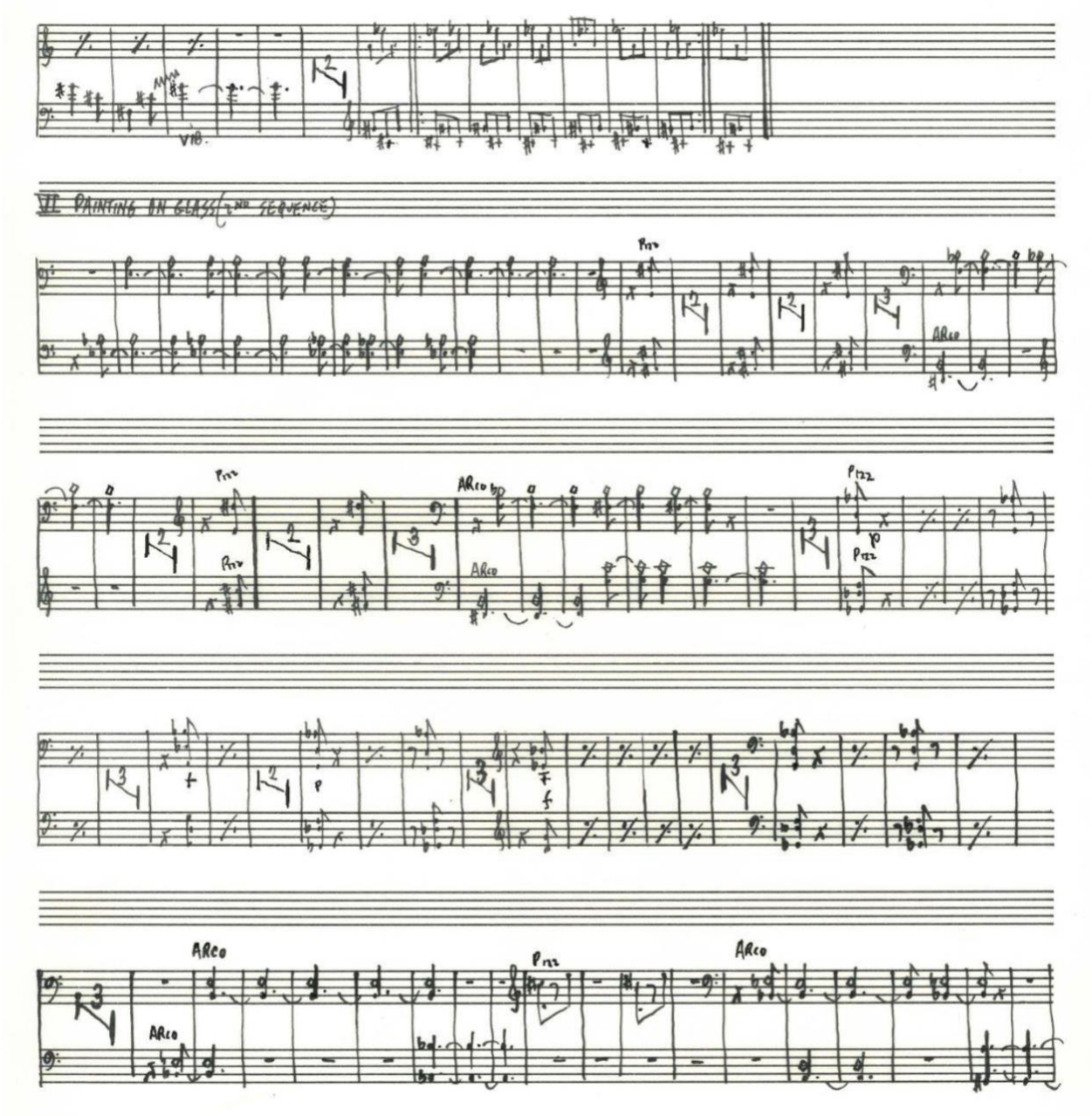


Figure 10: Version 2 of *Film Music for 'Jackson Pollock'*
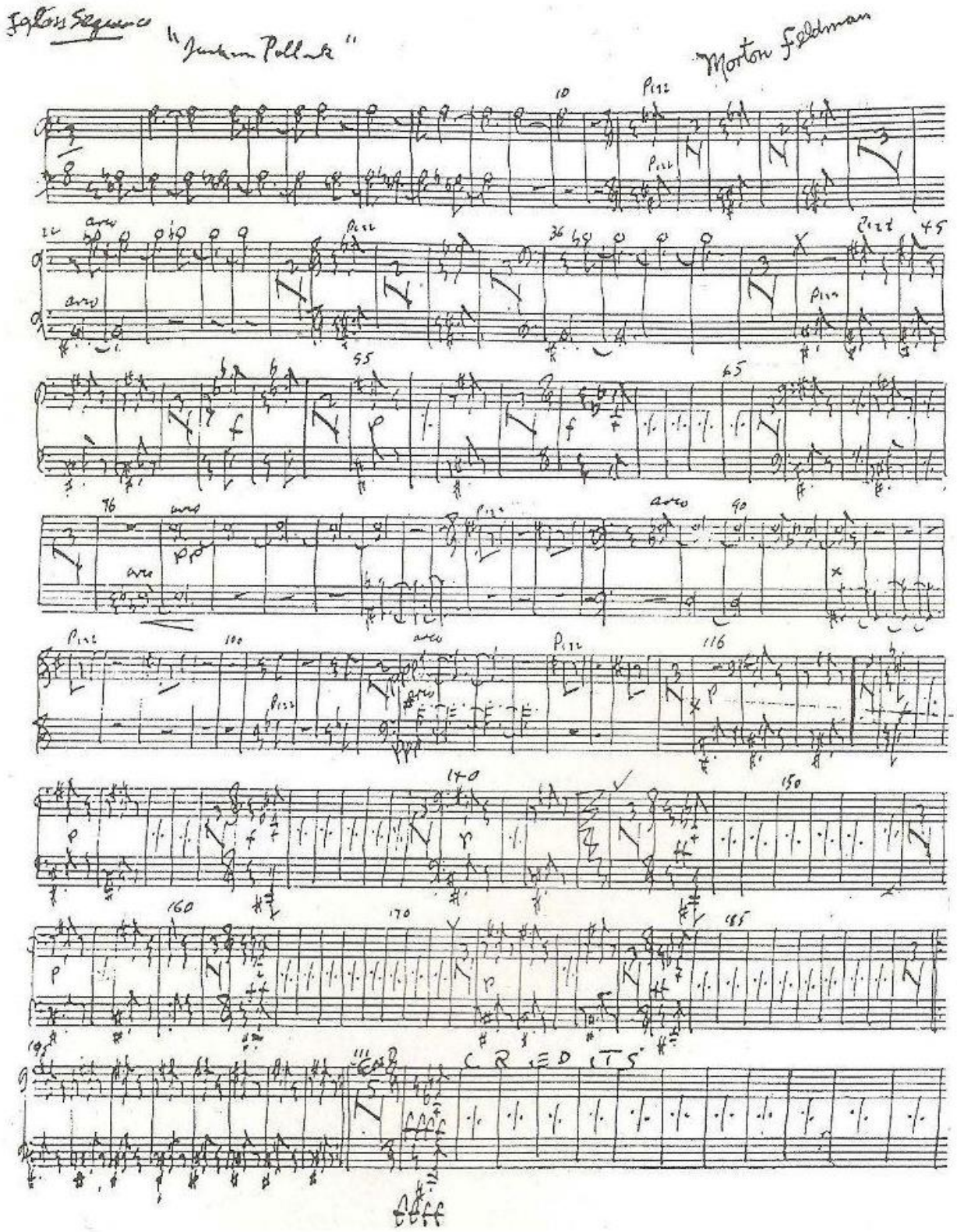


Figure 11: Version of *Film Music for 'Jackson Pollock'* provided by Daniel Stern

were making a short film about Jackson Pollock. The film would become an important document of Pollock at work. In particular, Namuth convinced Pollock to paint on glass so that he could film from underneath – a medium that Pollock had never worked with before. The story of how it repeat, often going direct from one set of material to another with no connecting tissue. Stern goes on:

> "What Morty was looking for, and found, was an objective correlative for Pollock's act of painting. The main difference is that the disciplined nature of the repeated harmonic and pizzicato themes is a little more formal than you might imagine in terms of Pollock's work. But then again, I remember Pollock saying in the film's narration that he didn't just throw paint. He controlled it; he knew what he was doing."[16]

Again, we find a stated association between Feldman's work and Pollock's technique, like we did in the graph pieces. In fact, if you look at Figure 9, you will see that it is laid out similar to a graph - 6 staves per page, 7 bars per staff. This only deviates in that some of the 'single' bars are in fact multiple measures of rest. Visually, however, the impression is consistent with a grid. came together varies slightly depending on who you ask, but it seems that Lee Krasner and Pollock first approached John Cage, who declined and instead recommended Feldman. Feldman's close friend, author and art critic B.H. Friedman, recalls the circumstances:

> "In 1951, Feldman had written the score for ten-minute Hans Namuth/Paul Falkenberg film on Pollock made late the previous year, and in appreciation had received an ink drawing in Pollock's spatter technique as exquisitely delicate and controlled as Feldman's music. Feldman told me, 'I watched the film, got the exact span of time for each of the sequences - the shots of the studio and the Springs [East Hampton] property, the painting on canvas, the two on glass - and then wrote the score as if I were writing music for choreography.' Later, Feldman introduced me to a friend of his, the writer and musician Daniel Stern, who played the score's two cello parts. Feldman felt that the music complemented Pollock's open intuitive aesthetic, so close in spirit to that of his own influential older colleague John Cage.[ ]So at the very least, Pollock knew that Feldman and I had *him* in common - our admiration for his lyrical, rhythmic, 'choreographic' painting - but he couldn't have known how much else we shared."[17]

[16] Daniel Stern, "Morton Feldman's *Glass Sequence*", 2

[17] *Give My Regards to Eighth Street*, B.H. Friedman, Introduction, xii-xiii

Particularly of note here are Feldman's words on how he thought about the structure and how it is similar to how he approaches writing for dance. This reference to choreography is often thought to relate to the way Pollock moved around the painting and his unique techniques, however it could simply refer to the way in which time is organized and the music is composed to fit within that organization. Though Cage wasn't partial to Pollock's work (or his personality), Feldman was quite interested, both out of respect for Pollock's work and because it was an important opportunity for such a young composer. Looking back on his early career, Feldman recalls his affinity for the painter and the common threads in both of their approaches:

> "...I met Jackson Pollock, who asked me to write music for a film about him that had just been completed. I was very pleased about this since it was just the very beginning of my career. Pollock lived way out on Long Island and only came to the city sporadically, making it difficult to establish a real continuity to our relationship. In thinking back to that time, I realize now how much the musical ideas I had in 1951 paralleled his mode of working. Pollock placed his canvas on the ground and painted as he walked around it. I put sheets of graph paper on the wall; each sheet framed the same time duration and was, in effect, a visual rhythmic structure. What resembled Pollock was my 'allover' approach to the time-canvas. Rather than the usual left-to-right passage across the page, the horizontal squares of the graph paper represented the tempo – with each box equal to a preestablished ictus; and the vertical squares were the instrumentation of the composition."[18]

Feldman is clearly drawing a connection between Pollock's technique and his own graph notation. It is also here that we start to uncover Feldman's thoughts about the connection between his notation and visual art. The ability to visualize the time structure with the grid allowed him to perceive the form and deployment of materials at a glance. Thinking through the piece had a correlative movement in time, perhaps. Similar to how Pollock feels like he's more *in* the painting when it's on the ground, Feldman feels more inside of the music and its flow when he tapes the pages up on the wall sequentially, walking around the room and working in a similar fashion to Pollock walking around the canvas. Pollock states in the film:

[18] *Give My Regards to Eighth Street*, 'Crippled Symmetry' (1981), p.147

> "Having the canvas on the floor, I feel nearer, more a part of the painting. This way I can walk around it, work from all four sides, and be in the painting."[19]

Daniel Stern, who became better known later in his life as a gifted writer, penned a short piece talking about the piece and how it came together.

> "It's a special piece, unlike the rest of his work. It was, as I interpreted it, intentional fragments that come together as a coherent whole, similar to the way Pollock's work is made. By this time Morty was definitely not interested in linear music; the very fragmentary nature of such a project was anti-linear."[20]

Likening Feldman's musical materials to Pollock's materials, which sometimes included found objects like nails, layered with the paint applied with gesture and gravity, opens an interesting perspective on Feldman's language. The material is made up of fairly simple elements - held notes and rhythmic ideas that are rarely longer than 2 measures, usually repeated. He doesn't develop his ideas in any kind of traditional sense and he certainly never employs transitional material from one idea to another, instead putting space between material. Already, in 1951, we can perceive early instances of ideas that we will see again in his later period - patterns that

Let's now turn our attention back to the recording made by Daniel Stern. The cellos are rarely well-aligned in accordance with how the music is presented in the score. The circumstances recounted by Stern certainly suggest that this was a pretty casual recording project.

> "The actual recording was done at the studio of Peter Bartok, Bela Bartok's son.There were two separate scores, one for each cello part. I recorded one, then put on giant earphones and listened to it as I recorded the second part. We did it in one session, and it took the better part of an afternoon. From a technical point of view, it was very hard to mix the harmonics with the pizzicatos and make them come out just right. Actually, I'll never know how much mixing was done on the console, and how much changing in the mix later on. But I think the final result captured the feeling of Pollock at work. When my grandson, who was eleven or twelve at the time, saw the film at the Museum of Modern Art, he said, perspicaciously, 'the music kind of goes with the painting.' And it does."[21]

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[19] Hans Namuth and Paul Falkenberg, *Jackson Pollock*, ~1:30

[20] Daniel Stern, "Morton Feldman's *Glass Sequence*", 1

[21] Daniel Stern, "Morton Feldman's *Glass Sequence*", 3

It's plausible that Stern was even looking at the music for the first time in the recording session. However, he also says that he recorded one cello alone and then recorded the other along with the first cello part playing in the headphones. Yet, it often sounds as though he is not able to anticipate the cello part he just recorded. It may even be possible that he wasn't even trying to play perfectly with the recording of the first cello part.

Remember – we really don't know what Feldman intended. This piece was never published, suggesting that Feldman never anticipated that anyone would ever play it again. This could be attributed to his youth, though earlier works than this were eventually published. Or, perhaps, he didn't even want anyone else to play it again. It's plausible that it was conceived of from the outset as a one-off recording project, never something that would be replicated or played live. If this was the case, he might have been composing with those specific conditions in mind - 1 cellist, playing over each track, and potentially not ever intending that the 2 cellos would be metrically aligned as presented on the score. Later on, he did exactly this with *Crippled Symmetry*. And recall the language in the *Intersection 4*: "The player is free…to make any rhythmic entrance within the given situation." In *Intersection 1*, the language similarly states: "The performer may make his entrance on or within each given time duration." All of the graph pieces from the *Intersection series,* spanning 1951-1953, direct the performer to navigate time in this way - as a bounded duration that is tracked by the player(s) but not necessarily reinforced by the realization in the form of a steady, perceptible pulse.

Consider this quote within a quote, where Feldman reflects on Cage's use of "rhythmic structures", as he calls them:

> "After about 1950, with a different music inventing different notations – or was it different notations creating a new music? – whatever, the rhythmic structures were still in operation, no longer heard, but obviously still important to the composer. Even now, no longer in need of these structural signposts, I feel Cage's sense of overall scale is quite

> similar to Brian O'Doherty's observation concerning Jackson Pollock's painting, 'that an imaginary grid seemed always in operation.'"[22]

Painting on canvas for Pollock, projecting sounds between icti for Feldman – these actions are performed without reference to conventional technique and performed within a measured space, the imaginary grid. Given the evidence we've considered – in particular, the multiple references to parallels between how Feldman was working exactly at this time and Pollock's working method – the idea that a similar modality is at play in this score doesn't seem so farfetched.

Considering the availability and success of the recording of the work from Ensemble Recherche, which essentially treats the work as a concert piece, performed by two cellos in rhythmic alignment, I wanted to consider an alternate, perhaps slightly less obvious path. I recorded both cellos with only an internal sense of pulse and without listening to the part I recorded first while I recorded the second. With this approach, editing became a crucial part of the interpretive process and I was relatively liberal in this respect, nudging the pieces a little bit this way, a little that way. I found myself searching for the feeling of drifting apart and coming back together. I largely agree with Stern's sentiment that the material is more formal than one might expect – the rhythmic profile of some of the motifs is very clear. The pizzicato triple stops in the last movement are notated as unison rhythms in the score – these slightly offset hits are a bit jumbly and the quasi-phasing effect is more difficult to perceive.

My misgivings about the success of this approach could be the result of Feldman's inexperience, or of a miscalculation on my part. Without more information and context, a proper interpretation of this piece is not possible to arrive at with any authoritative weight. But, with Feldman, one must consider what a priori assumptions about notational interpretation are being subverted, and this strategy seems as valid as any other. I made a new score that attempted to

[22] Morton Feldman, *Give My Regards to Eighth Street*, 'Crippled Symmetry' (1981), p.145

reconcile the myriad documents available and I edited my version into the original film, doing my best to adhere to the film cues present in the original manuscripts. You can hear this version in Video Example 2.

Chapter 3 PATTERNS IN A CHROMATIC FIELD

I would now like to turn our attention to a much later work of Feldman's – *Patterns in a Chromatic Field* for cello and piano, composed about 30 years after the first 3 works we looked at. This work is much longer and much more sophisticated than the last 3 works we examined. However, we still find the presence of the grid in the visual layout of measures, though time signatures are frequently changing. My friend and pianist Steve Long, who you will see in the videos I made of selections from the piece, remarked that it was as though each measure was actually intended to be perceived as structurally equivalent and we are just zooming in and zooming out. This would suggest a 'felt' sense of equivalence that aligns with the visual impression of the music. After all, as evidenced in the inconsistent tempi between the two cellos the last piece, felt equivalence often doesn't result in objective equivalence. Our sense of time is, of course, inherently subjective; this is why instrumentalists regularly practice with a metronome at all stages of development – to condition our sense of time so that we might be able to better rely on it to be objectively consistent. Consider the Figure 12 in relation to the score.

We also see the sharp cuts between material with no transition, like we did in the Pollock music. Oftentimes, these cuts occur right at the end of a system or page, suggesting that the single page, largest perceivable unit of the grid, was also a kind of bounded duration to fit material inside of. This was by design - Feldman's investment in painting and rugs drew his mind towards scale and form. He states:

> "A modular construction such as the above could be a basic device for organic development. However, I use it to see that patterns are 'complete' in themselves, and in no need of development - only of extension. My concern is: what is its scale when prolonged, and what is the best method to arrive at it?"[23]

[23] *Give My Regards to Eighth Street,* "Crippled Symmetry", p.142
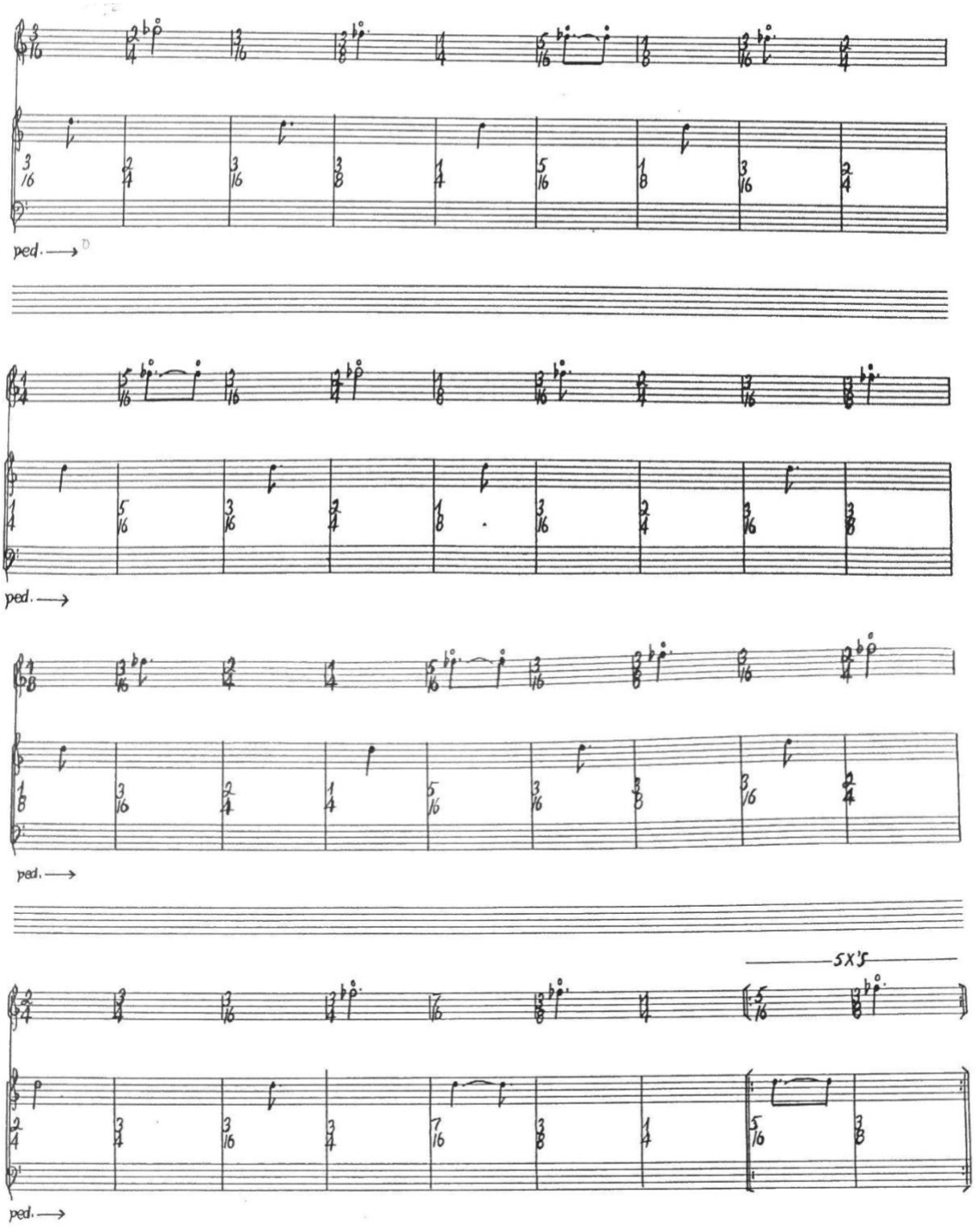


Figure 12: *Patterns in a Chromatic Field*, mm. 559-594

Video Example 3

To illustrate how this might present itself in context, Figure 13 presents a section where modular patterns are subjected to permutations of scale through repetition and slight alterations in the meter and manner of subdivision**.** Though this manner of organizing the notational imagery has some similarities to the previous pieces, a new visual corollary has captured Feldman's attention in the intervening years: oriental rugs. Just as Pollock's work still conjured impressions of the grid, the rugs do as well:

> "The moment a composer notates musical thought to an ongoing ictus, a grid of sorts is already in operation, as with a ruler. Music and the designs or a repeated pattern in a rug have much in common. Even if it be asymmetrical in its placement, the proportion of one component to another is hardly ever substantially out of *scale* in the context of the whole. Most traditional rug patterns retain the same size when taken from a larger rug and then adapted to a smaller one.[ ]If we examine asymmetrical phrasing...we find that the partitioning is concentrated enough in time to hear the mosaic-like process of the grid at work. We also recognize a historically reminiscent 'conversation' between the phrases."[24]

Unlike Pollock, where the grid is implicitly felt instead of explicitly perceived, these later works utilize patterns to engage more directly with the perceptible grid, though often in ways that elide between modules and blur the boundaries imposed by bar lines. Consider the opening, shown in

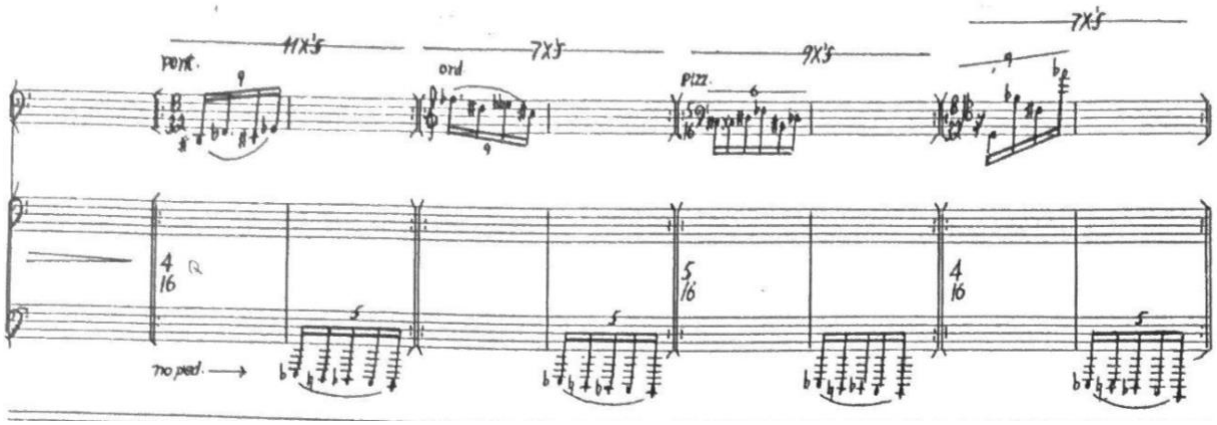


Figure 13: *Patterns in a Chromatic Field*, mm. 1045-1053

Video Example 4

[24] *Give My Regards to Eighth Street*, 'Crippled Symmetry' (1981), p.136

Figure 14 - all of the measures are divided groupings of subdivisions of 9 within the space of a quarter note, which is also the length of a measure - three groups of 2 and one group of 3. However, where that group of 3 is always shifting. Moreover, we have a limited pitch group of only 4 notes: B double flat, A flat, A sharp, and F double sharp (we will address the strange spellings shortly). The order of the pitches is also continuously shifting and the group of 3 does not favor one pitch over another. Additionally, these notes are always grouped under one bow stroke and slurred over the bar line, so that the point of re-articulation is never right on the start of a new measure. This continual reconstitution of limited materials along different, non-correlated parameters stands to only disorient us within the grid, despite the fact not once is a note held over the bar line.
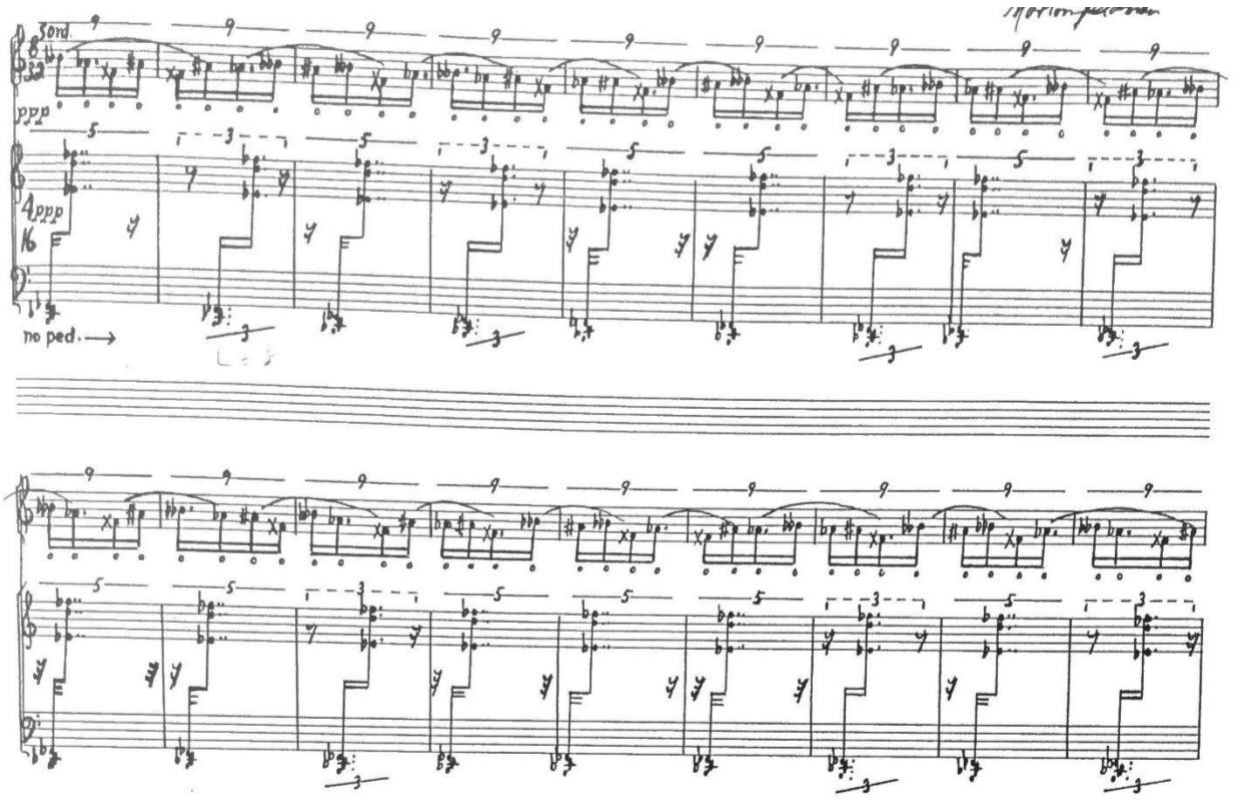


Figure 14: Patterns in a Chromatic Field, mm. 1-18

The rugs, though patterned, were not made or dyed mechanically, which led to slight inconsistencies of scale and color. This quality of imperfection within an otherwise consistent pattern or hue was known as 'abrash'. Feldman discusses the influence of this quality on his work:

> "The color-scale of most nonurban rugs appears more extensive than it actually is, due to the great variation of shades of the same color (abrash) – a result of the yarn having been dyed in small quantities. As a composer, I respond to this most singular aspect affecting a rug's coloration and its creation of a microchromatic overall hue. My Music has been influenced mainly by the methods in which color is used on essentially simple devices. It has made me question the nature of musical material. What could best be used to accommodate, by equally simple means, musical color? Patterns."[25]

This 'microchromatic' nature of the rugs also begins to bear on a new notational technique - Feldman's idiosyncratic use of accidentals - in particular, the use of double accidentals where a more 'straightforward' spelling might be available. Accidentals refer to modifications of so-called 'natural' pitches by half-step increments - the clearest way to understand this is that the white keys on the piano are natural pitches, while the black keys are accidentals. An enharmonic spelling refers to a pitch that can be spelled in two different ways - for example, E flat and D# both refer to the same key on the piano, despite the difference in spelling. This can get more complicated when you include double accidentals, which can modify a 'natural' spelling by a whole step in either direction. So, an E natural could also be spelled as a F flat or D double sharp. Feldman's use of these double accidentals often results in situations where one pitch might sound lower than the previous pitch while being notated with a 'higher' spelling - for example, an E double flat that follows a D#, which could just as easily be written as a D natural following a D#. This directly interferes with the performer's ability to readily

[25] *Give My Regards to Eighth Street,* "Crippled Symmetry", p.138-139

apprehend and realize the notation and inhibits the performer's ability to confidently rely upon their intuition when it comes to inflecting pitch according to context.

Feldman offers no explicit instruction pertaining to how one would differentiate between two notes that, though spelled differently, would be considered equivalent within twelve-tone equal temperament. Of special note is mm. 938-947 [Figure 15], where the cello alternates between a B natural and a C flat. These pitches are generally considered to be the same - or, rather, a pianist would use the same key on the piano to play both. This example is reason enough to deduce that Feldman's idiosyncratic approach to accidental spelling is intended to produce some perceivable difference between the two notes. While this might be normal for a string player to do intuitively, Feldman requires the cellist to intentionally inflect these otherwise equally tempered pitches. This means that the cellist must be able to perceive some difference between a B natural and a C flat and to apprehend it in their playing.

For Feldman, using alternate spellings was a great advantage, as it allowed him to further nuance the relationship between the notational image and interpretation.

> "An image to me is essentially just an intense belief in material, and that I feel that I cannot have musical image without the belief, that the belief goes hand in hand.
>
> And I decide, this was a good choice, because this was the beginning of new concerns for me, different spellings, and what sounded out of tune, in the strings were not out of tune, it was the way the instruments were spelled, but not in a conceptual way, in other words, it just didn't go into quarter-tones it went into – where I would take double sharps and double flats very seriously but not in a Schoenbergian kind of leading tone way, but it was still related to the pitch – but as you know a sharp is a little more directional. I started to take spelling very, very seriously, and to me it was like adding a little turpentine in the chromatic field. I've been living with the minor second all my life and I finally found a way to handle it, and if you look at all the scores, all my recent scores that have string writing, is that I'm very much into the spelling of the strings, not in woodwinds or brass, just the strings. So that's a new concern for me."[26]

[26] p.19-20, "Morton Feldman: Toronto Lecture"
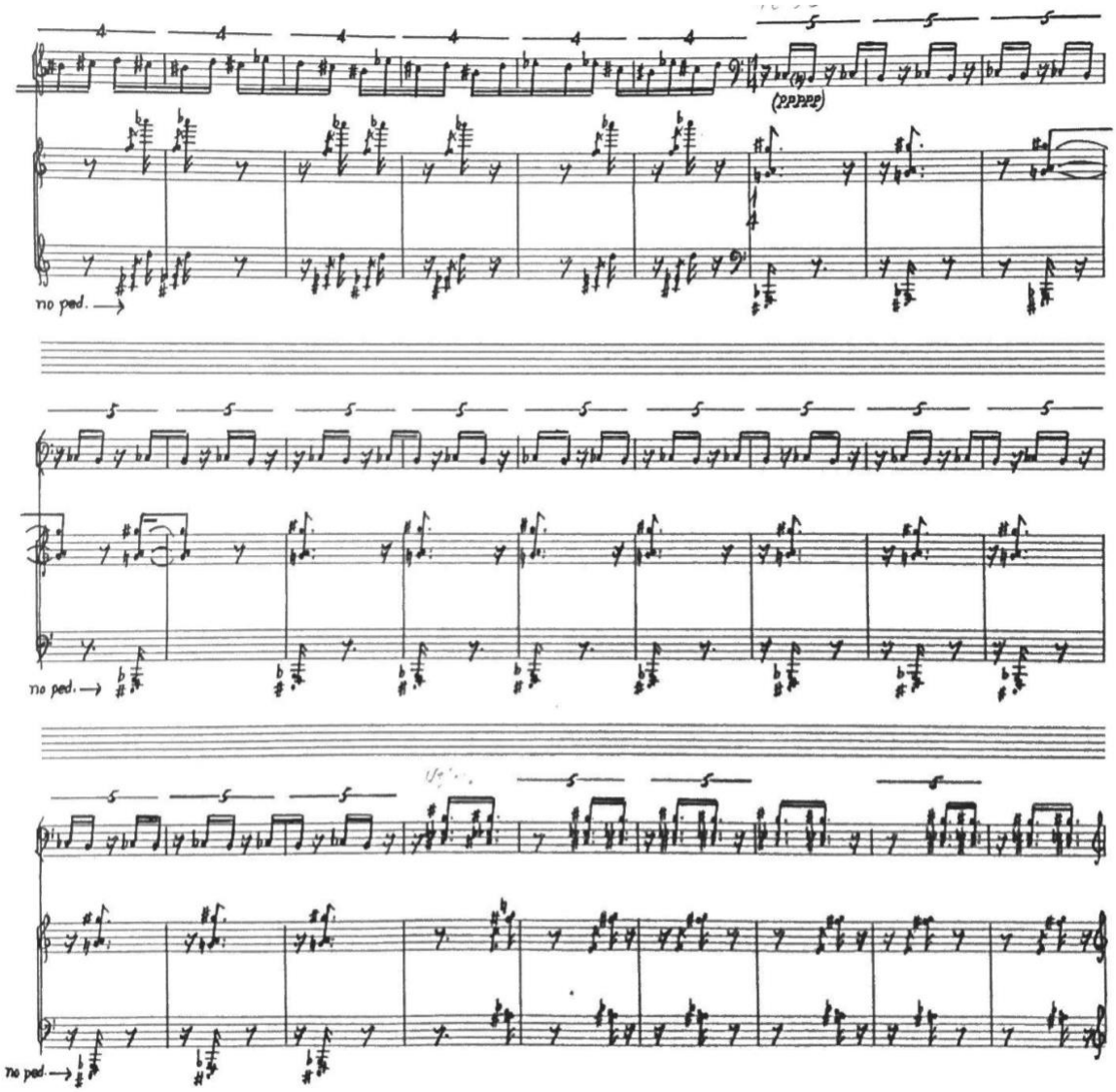


Figure 15: *Patterns in a Chromatic Field*, mm. 982-1008

Video Example 5

This is all well and good, but how is a performer supposed to make sense of this? Feldman acknowledges the difficulty and in fact identifies this potentially problematic relationship between performer and score as an asset to the music, similar to the graph pieces.

> "The patterns that interest me are both concrete and ephemeral, making notation difficult. If notated exactly, they are too stiff; if given the slightest notational leeway, they are too loose.
>
> Though these patterns exist in rhythmic shapes articulated by instrumental sounds, they are also in part notational images that do not make a direct impact on the ear as we listen. A tumbling of sorts happens in midair between their translation from the page and their execution. To a great degree, this tumbling occurs in all music – but

> becomes more compounded in mine, since there is no rhythmic 'style,' a quality often crucial to the performer's understanding of how and what to do. I found this just as true in my music of the fifties – where rhythm was not notated, but left to the performer."[27]

This 'tumbling' is exactly what I am calling interpretation. Notation, in one sense, provides the performer with useful quantitative information - what pitch do we place where and for how long does it sound? There are many elements of notation, however, that are learned through performance practice or perhaps intuited through style – articulation and dynamics are common examples. Feldman's notation clearly implies a perception of difference where conventional notational usage would assume equivalence. I argue that this is the specter of memory at work on the subconscious level. By freely alternating through these so-called equivalent notations, Feldman is requiring us to question our basic assumptions and address the contexts in which seemingly interchangeable values, seemingly only dissimilar because of semantic difference, might be considered distinct, having individual identities and characteristics.

There are also instances in *Patterns* where Feldman uses different ways of notating the same rhythm, suggesting that there is a qualitative difference between both representations. Consider Figure 17 - we have 4 eighth notes in the time of 3 eighth notes in the second bar of the staff, notated as a polyrhythm - meaning that it's intended to be felt as a superimposition onto the given meter. However, just 4 bars later we have the exact same rhythm but notated in its subdivided form. Mathematically, these are the same! It is unclear what Feldman intends the difference to be - I would argue that the polyrhythm suggests a weaker feeling of the rhythm against the 'main' pulse, whereas the subdivision prompts one to clearly feel the rhythm in relation to the main pulse.

[27] *Give My Regards to Eighth Street,* "Crippled Symmetry", p.143

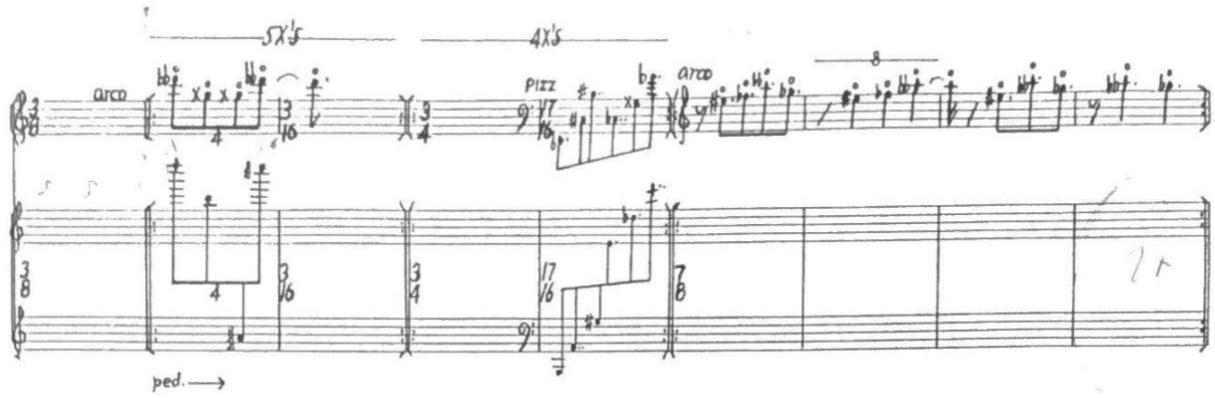


Figure 16: Patterns in a Chromatic Field, mm. 325-333

Again, rugs appear to be the motivation for his use of rhythm:

> "Rugs have prompted me in my recent music to think of a disproportionate symmetry, in which a symmetrically staggered rhythmic series is used: 4:3, 6:5, 8:7, etc., as the point of departure. For my purpose, it 'contains' my material more within the metric frame of the measure; while in post-Webern arhythmic language, lopsided acceleration results from the directional pull of one figure to another. What I'm after is somewhat like Mondrian not wanting to paint 'bouquets, but a single flower at a time.'"[28]

The post-Webern tendency with rhythm was to effect a compromise between symmetrical and asymmetrical beats. Unlike Stravinsky, whose 'raw' syncopation articulated tight harmonic rhythm patterns, post-Webern rhythmic usage stemmed from a twelve-tone polyphonic concept of continuous variation in which a rhythm - not dependent on harmony - varied the motivic shape of the music. We find an example in Score Example 17**.**
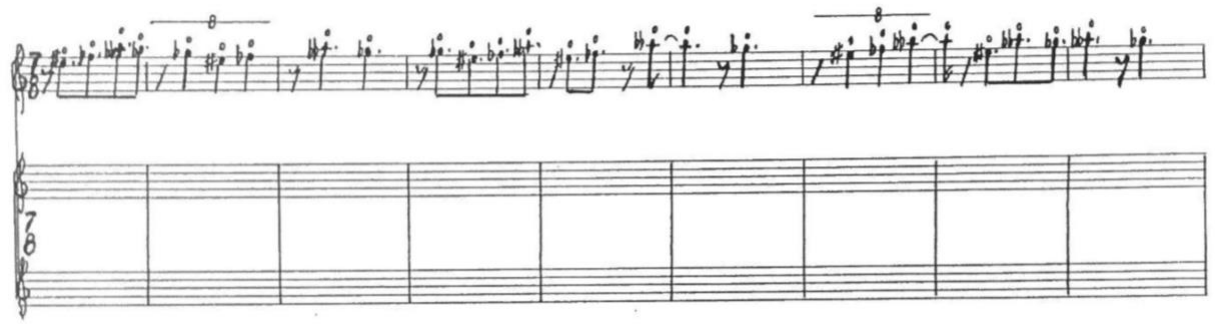


Figure 17: Patterns in a Chromatic Field, mm. 262-270

[28] *Give My Regards to Eighth Street,* "Crippled Symmetry", p.134-135

As we have already noticed, the spelling of pitches is quite strange - oftentimes the visual contour doesn't reflect the aural contour. Look back again at Score Example 14. The A sharp sounds higher than B double flat, which corresponds to A natural, but appears lower in the notational image. These generally accepted equivalences of pitches between different spellings are referred to as enharmonic spellings - like the polyrhythm and the subdivided rhythm examined previously, these pitches are purportedly equivalent. Another way of saying this is that they would be played on the same key of the piano regardless of spelling.

Violinist Paul Zukofsky worked with Feldman on many of his late works for violin that employ this kind of accidental notation, including *For John Cage* and *Spring of Chosroes*, both written for violin and piano, and the *Violin Concerto* as well. Violinist Erik Carlson generously shared his email correspondence with Zukofsky about how to interpret these unusual note spellings. However, Zukofsky is only able to help us contextualize what isn't useful about certain ways of thinking about the accidentals. Zukofsky tried suggesting that they might apply to a desired temperament - but Feldman largely was uninterested in prescribing any kind of system and, when pressed to do so on some level, was inconsistent across his works. Let's consider some different perspectives.

One possibility is to make no decisions about how to handle the double accidentals and non-intuitive. Allow the tumble of memory and playing to happen naturally. The drawback is that pitch identities may become unclear to an undesirable degree, perhaps even getting quite far away for any pitch that might even come close to its corresponding piano key. String players rely heavily on their inner ear to guide micro-movements of the hand that ensure clear pitch identities. If we simply let the chips fall where they may, we may stray quite far from home.

It is also certainly acceptable for the performer to simply read this as though it's intended to be played in equal temperament. This doesn't completely eliminate the possibility of the accidental spellings manifesting on the subconscious level, but the problem of the inner ear remains - practice will almost invariably lead one towards greater precision – eventually, it becomes hard to justify making some kind of decision. I would also like to again point out that this is a piece for a cello and piano, and the notational image in both instruments is radically different. Consider the notation in Score Example 18. I've provided a simplified spelling Score Example 19. The cello pitches are all spelled with accidentals and while the piano uses accidentals sparingly.

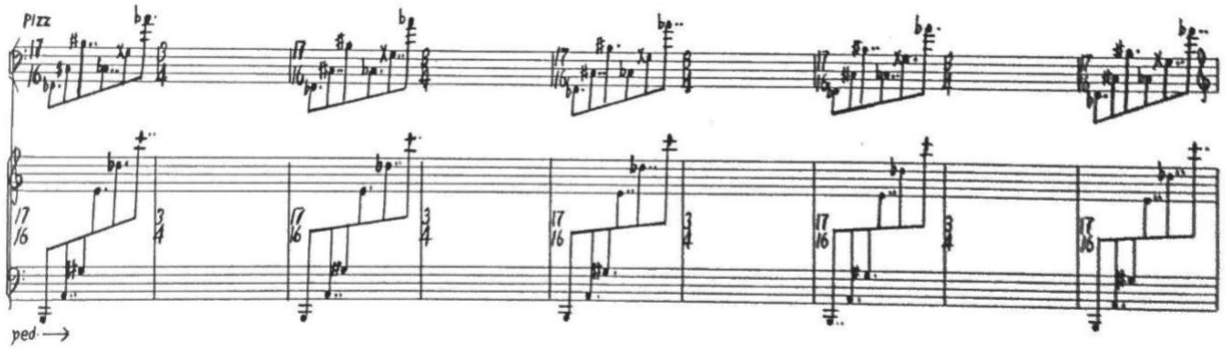


Figure 18: *Patterns in a Chromatic Field*, mm. 91-99

Video Example 6
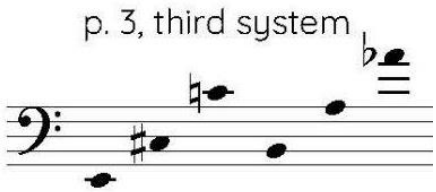


Figure 19: *Patterns in a Chromatic Field*, mm. 91-99, simplified spelling

Figure 21 shows another such instance, even more clear, because the cello continues to repeat the same notes while the piano changes chords underneath, offering several contexts

against which one can hear the microtonal shadings of the cello set against the equally tempered piano. Again, a simplified spelling is provided in Figure 22**.**

All of this suggests to me that the performer should find a way to consciously apprehend the pitch spellings. Since it is clear that any kind of overtly microtonal approach is likely to miss the mark, it seems likely that we are talking about just a little higher or a little lower. One could treat the accidentals as being deviations from white notes - so a D double flat would tend a bit higher, closer to D. Truthfully, I simply found this approach to be unconvincing by and large as it seemed to resist any impact of relationality between notes, impacting my ability to 'hear' the pitches.

Another approach is to think of them as leading tones. Flats would tend a little low and sharps would tend a little high, emphasizing the magnetic pull of the note they are resolving too. Consider the spelling in Figure 23, with the simplified spelling shown below in Figure 24**.** This could be interpreted as a chain of resolutions that resolve to the 'wrong' spelling, never settling comfortably.

One must also consider whether all accidentals follow these rules or if they only apply to double accidentals. Some notes, the black keys, only have spellings that include a flat or sharp - one could simply regard all such notes as equally tempered. However, some enharmonic spellings of single sharps or flats correspond to natural notes. E/F and B/C are both white keys that are only a half step apart. Thus, E sharp is the same as F natural and F flat is the same as E natural.

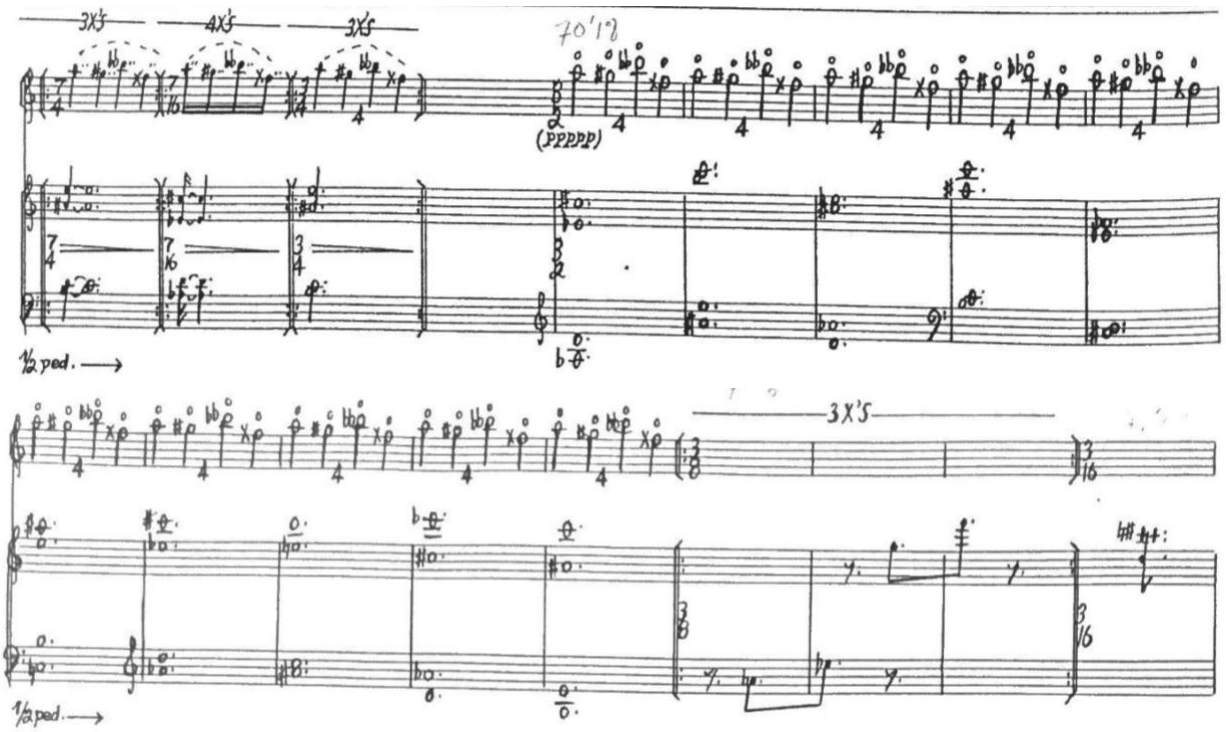


Figure 20: *Patterns in a Chromatic Field*, mm. 1468-1485

Video Example 7

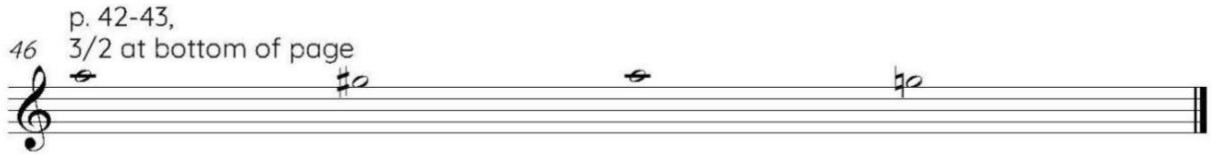


Figure 21: *Patterns in a Chromatic Field*, mm. 1468-1485, simplified spelling

This concludes my overview of interpretational questions in Feldman's work. While, as I stated at the outset, my goal was not to go searching for throughlines between all of the pieces, the prevalence of the grid and Feldman's myriad attempts at subverting and undermining it is an undeniable common thread. The interpreter often must find a way through this ambiguity - there isn't much ambiguity to pitch or rhythmic choices, which inherently tend towards concretization. However, through careful examination of the historical evidence, performance practice, and context, we have many more options than simply doing 'whatever we want.' Ambiguity does not

mean that we can't navigate an informed path through the fog, and while clear answers may still elude us, lack of clarity does not necessitate shooting blindly in the dark.

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