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Morton Feldman's Graphic Notation: *Projections* and Trajectories

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Abstract
In the winter of 1950–51 Morton Feldman composed a series of pieces titled Projections *in a new notation of his own invention. The first-known graphically scored works of the postwar era, the* Projections *were immediately championed by Feldman's friend John Cage in the language of his budding philosophy of non-intention, a framework of thought largely alien to Feldman. In later years, Feldman instead explained the* Projections *through the discourse of abstract-expressionist painting, substituting its model of willful creative action for Cage's Zen-inspired doctrine of aesthetic indifference. Yet the story behind his graphic notation is more tangled still, for its sources included both Edgard Varèse and Stefan Wolpe, composers whose spatialized vision of sound influenced Feldman's new conception of the creative act. An examination of the origin and reception of the* Projections *offers insight into the forces that catalyzed experimental notation in postwar New York and the rationales that were ultimately ascribed to it.*

Sometime near the end of 1950, when Morton Feldman and John Cage lived in the same apartment building on New York's Lower East Side, the twenty-four-year-old Feldman paid a visit to his friend's top-floor loft. Famously, the two composers had built a rapport the previous winter after encountering one another at a performance of Webern's Op. 21 by the New York Philharmonic, each fleeing the scene as Webern's music gave way to Rachmaninoff; their professional relationship grew stronger in the months thereafter, leading Feldman to rent an apartment on the second floor of Cage's tenement. Although his productivity had flagged since the start of their friendship, Feldman experienced an epiphany on that evening in late 1950 that shaped the course of his emergent career while opening new avenues for those around him. Accounts of the event differ in detail, but all agree in one respect: at some point, he walked to a different room of Cage's apartment and sketched a passage of music in a spontaneously devised style of graphic notation.[1] He soon

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[1] Feldman recounted the event in his essay "The Avant Garde: Progress or Stalemate?" *New York Times*, 5 March 1967, section D, 27, and later in Jan Williams, "An Interview with Morton Feldman," *Percussive Notes* 21/6 (September 1983): 6–7. The latter interview is reprinted in *Morton Feldman Says: Selected Interviews and Lectures 1964–1987*, ed. Chris Villars (London: Hyphen Press, 2006), 150–59. Cage offered his own recollection during a question-and-answer session held in conjunction with his delivery of the Norton Lectures at Harvard in 1988–89; the transcript appears in his *I–VI* (Cambridge, MA: Harvard University Press, 1990), 237–40.

harnessed the notation to compose a series of works entitled *Projections* (1950–51), the earliest known graphic scores to emerge from the postwar avant-garde.[2]

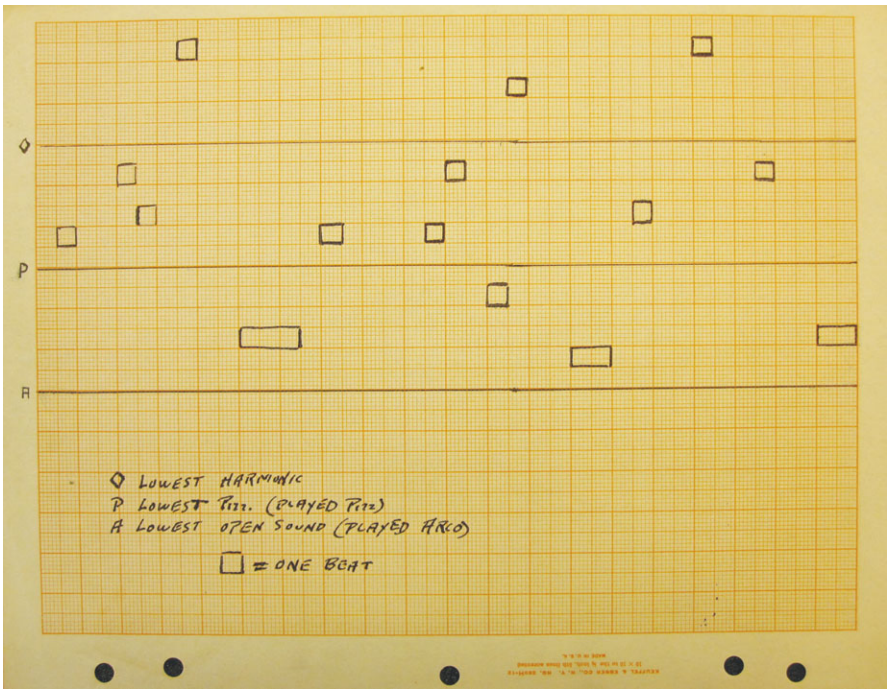
The *Projections* would help to launch a vast repertory of experimental music distinguished by the latitude it offered performers in shaping the sonic realization of notated scores. Described in later years with marked terms such as "indeterminate," "aleatoric," and "improvisatory," that repertory comprised works as different in character, ideology, and philosophical orientation as the individuals who set them onto paper. In fact, disagreements and misunderstandings animated the postwar development of experimental notation from the start. Before the ink was dry on Feldman's graph, Cage began to promote his friend's new notation in the language of his own philosophy of non-intention, a nascent framework of thought with which the *Projections* bear a complex and puzzling relationship. Although Cage's emerging ideas on chance were largely incompatible with Feldman's artistic outlook, the striking leeway the *Projections* offered to performers may have helped to inspire Cage's budding doctrine, if inadvertently. Feldman chose to align the *Projections* instead with abstract expressionism, an art whose creative paradigm of subjective engagement stood at odds with the Zen-inspired philosophy of aesthetic detachment promoted by his better-known colleague. Yet the forces influencing his graphic notation were still more diverse, for they included Edgard Varèse and Stefan Wolpe, older figures who loomed large over his maturation as a composer. Attributable neither to a single act of appropriation nor to one of solitary invention, his new notation emerged instead from the transformation and creative synthesis of many ideas circulated by older modernist artists in his milieu.

Reversing the historical tendency toward ever-greater specificity in musical notation, Feldman designed the *Projections* within a framework that hindered, rather than strengthened, his ability to specify compositional details with the nuance of a composer writing in conventional notation. The sketch shown in Example 1 offers a glimpse of his new notation in what appears to be an embryonic stage.[3] Now housed among the papers of the late pianist David Tudor, the close friend and collaborator of both Feldman and Cage, this page suggests a kinship with the first work of the *Projections*, a piece scored for solo cello.[4] Although its notational design is inchoate

[2] The five works of the series were published by C. F. Peters in the early 1960s as *Projection 1* for solo cello (holograph dated "1950"); *Projection 2* for flute, trumpet, violin, cello, and piano (holograph dated "Jan. 3, 1951"); *Projection 3* for two pianos (holograph dated "Jan. 5, 1951"); *Projection 4* for violin and piano (copy in John Cage's hand, dated "1–16–51"); and *Projection 5* for three flutes, trumpet, three cellos, and two pianos (holograph dated only "1951"). Feldman went on to write another group of pieces in a related form of notation over the next three years, calling them *Intersections* (1951–53). The secondary literature on the *Projections* includes Sebastian Claren, *Neither: Die Musik Morton Feldmans* (Hofheim: Wolke Verlag, 2000), especially 45–58; John P. Welsh, "*Projection 1* (1950)," in *The Music of Morton Feldman*, ed. Thomas DeLio (Westport, CT: Greenwood Press, 1996), 21–35; and Ryan Vigil, "Compositional Parameters: *Projection 4* and an Analytical Methodology for Morton Feldman's Graph Works," *Perspectives of New Music* 47/1 (Winter 2009): 233–67.

[3] Feldman, untitled sketch on graph paper, David Tudor Papers, Getty Research Institute, Box 9.

[4] Circumstantial evidence may even tie the sketch to Feldman's aforementioned breakthrough in Cage's apartment, for Tudor had been present that night: using Cage's piano, he played Feldman's impromptu exercise immediately after it was composed. This fact perhaps explains how a single page



Example 1. Feldman, undated sketch. Getty Research Institute, Los Angeles (980039). Used by permission of C. F. Peters Corporation and the Morton Feldman Estate.

in comparison with the works that followed, the sketch demonstrates the kernel of Feldman's new idea. Time, measured on the horizontal axis, is parceled out with some measure of control; pitch, however, is indicated only in relative terms above a line corresponding to the player's lowest available sound. Compare the sketch to Example 2, which shows the first page of *Projection 1*, its apparent offspring.

Here, a crude form of meter has emerged. Each square on the grid still corresponds to one "beat" (or, as Feldman would write in the work's performance instructions, one "ictus or pulse"), but these beats are now grouped into collections of four, akin to measures in common time.[5] Pitch in Example 2 remains largely unspecified, as

of notation written for a solo string instrument found its way into the pianist's manuscript collection, dominated by works composed for his own instrument. Beyond sharing common instrumentation with *Projection 1*, the sketch shares with the published piece an approach for designating articulation unseen in Feldman's only other graphic work scored for a solo string instrument, *Intersection 4* of 1953. Coupled with the incipient nature of its notation, this evidence suggests that the sketch is among Feldman's very earliest. Yet its potential role in the composer's adoption of graphic notation and its precise bearing upon *Projection 1* cannot be ascertained with certainty.

[5] The boundaries of each such "measure" are marked on its left and right sides by dotted vertical lines. In his performance instructions, Feldman writes, "Duration is indicated by the amount of space taken up by the square or rectangle, each box [i.e., each space demarcated by dotted lines] being potentially 4 icti [*sic*]. The single ictus or pulse is at the tempo of 72 or thereabouts." Implicit in this instruction is Feldman's essentially deterministic handling of duration in the *Projections*. Conversely, in his subsequent series of graphically notated *Intersections*, the composer permitted musicians greater license in timing their entries, allowing them to initiate their notes at any point within the temporal duration of a given "note" on the grid.

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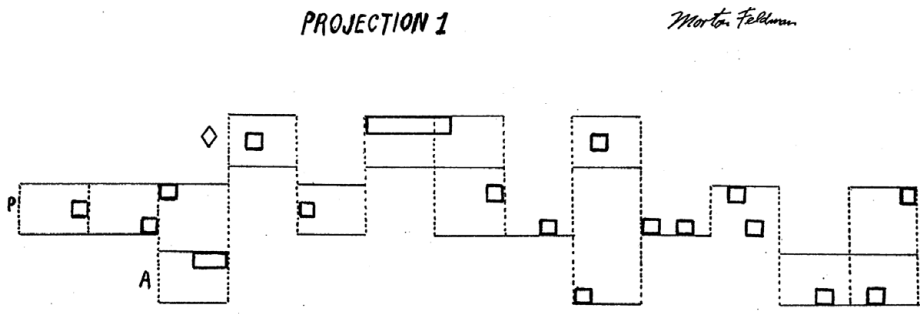

Example 2. Feldman, Projection 1 (1950), 1. Copyright © 1962 by C. F. Peters Corporation. Used by permission.

it does in Example 1, but now the vertical space within each large box is divided into three bands, corresponding respectively to a performer's high, medium, and low registers, leaving the player free to select any note within the register indicated. Feldman would ultimately change his means of designating articulation across the various works of the *Projection* series, but *Projection 1* approaches the matter as the sketch in Example 1 does, with separate strata in the score denoting whether sounds should be articulated via pizzicato (P), arco (A), or harmonics (◊).

Feldman's breakthrough with graphic notation and subsequent completion of his *Composition for Cello (Projection 1)*—as the first work of the series was initially titled in manuscript—likely transpired in December of 1950. Yet no primary source can confirm the date of either event with precision. Although they could have occurred in close succession, an equally plausible scenario has the composer laying aside his initial sketch and only later reworking it into final form. Thanks to an important piece of correspondence, however, the chronology of events that *followed* the composition of *Projection 1* is quite clear, even if those same events would render the rationale behind Feldman's notation increasingly opaque.

Cage "Broadcasts His Faith"

After Feldman had written *Projections 2–4* during the first half of January 1951, Cage began to promote the pieces, introducing audiences and critics to the music while creating the impression that a coterie of younger composers stood in his shadow, sharing in his artistic ethos. A revealing letter from Cage to Tudor provides a snapshot of these promotional efforts as they were unfolding. Referring to his conversations with three influential tastemakers of the early 1950s—the critics Virgil Thomson, Arthur Berger, and Minna Lederman—Cage wrote,

> Virgil tells me that he's not convinced about Morty, that he is too much the 'anointed one' (oil dripping off his shoulders). However, I'm more or less generally broadcasting my faith in his work and to the point of fanaticism. I spent a troublesome hour & ½ arguing with Arthur Berger re: Morty's and Xian's [Christian Wolff's] music because Arthur has to review the concert next Sunday. And then another hour with Minna Lederman, who began to take

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> the music more seriously when I explained Suzuki's identification of subject and object vs. the usual cause and effect thought. She even invited me to dinner to talk further.[6]

A charming and persuasive speaker, Cage met with some measure of success in these endeavors, or so his experience with Lederman suggests.[7] But how accurate was his representation of Feldman's music? The question requires an examination of the shared ideals that drew these two figures together at the outset of the 1950s as they bonded over their mutual enthusiasm for Webern and the radical vistas his music opened for them.

In the earliest year of the friendship, Cage and Feldman each harbored dreams of a new music freed from the past, a quixotic vision soon to be shared by many of their contemporaries in the European avant-garde. Questions over the nature of musical continuity held particular interest for both composers even before the start of their friendship. For example, Feldman's composition teacher of the mid to late 1940s, Stefan Wolpe, accused him of willfully "negating" his musical ideas rather than developing them, thereby sabotaging the rhetorical basis of his work's continuity in time.[8] With this in mind one might imagine the specific appeal that Webern's symphony held for Feldman upon his exposure to the piece, its fractured *Klangfarbenmelodie* offering a radically new, anti-thematic treatment of the sonic continuum. Likewise, Cage had been concerned with the nature of musical continuity immediately prior to meeting Feldman; in composing the first movement (1949) of his *String Quartet in Four Parts*, for example, he intentionally treated harmonies as static, non-contingent entities.[9] Yet Cage's growing resistance to musical rhetoric and teleology was linked to another, more famous trajectory in his development: his incremental abandonment, since the mid-1940s, of an aesthetic grounded in subjective expression and gradual turn toward one rooted instead in the values of emotional detachment and psychological quiescence. Important here are the words "incremental" and "gradual," for many of the stylistic traits apparent in Cage's music during 1949 and 1950 prefigure those in his later body of chance music. Yet the Cage whom Feldman visited on that winter night in late 1950 had not fully accepted non-intention as an artistic paradigm, a conceptual development that would be accompanied by his adoption of the *I Ching* as a compositional tool between 21 January and 9 February 1951.[10] In fact, according

[6] John Cage, Letter to David Tudor, undated [ca. 21–27 January 1951], in the David Tudor Papers, Getty Research Institute, Box 52.

[7] Cage's entreaties to Berger were less fruitful, if the latter's scathing review of Feldman's music is any indication. See Berger, "Music News," *New York Herald Tribune*, 28 January 1951, quoted in David Wayne Patterson, "Appraising the Catchwords, c. 1942–1959: John Cage's Asian-Derived Rhetoric and the Historical Reference of Black Mountain College" (Ph.D. diss., Columbia University, 1996), 318.

[8] Feldman, "Crippled Symmetry" (1981), in *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman (Cambridge, MA: Exact Change, 2000), 146.

[9] For a discussion of Cage's methodology in composing the *String Quartet in Four Parts* and subsequent works, see David W. Bernstein, "Cage and High Modernism," in *The Cambridge Companion to John Cage*, ed. David Nicholls (Cambridge: Cambridge University Press, 2002), 186–93; and James Pritchett, *The Music of John Cage* (Cambridge: Cambridge University Press, 1993), 47–55.

[10] Cage's final work before turning to the *I Ching* was *Sixteen Dances*, a piece composed for Merce Cunningham between December 1950 and mid-January 1951, a period that encompassed Feldman's composition of most, if not all, of the *Projections*. In a letter to Boulez on 18 December 1950, in the

to Cage's later remarks on the subject, Feldman's *Projections* helped to spur that adoption.[11]

It was just prior to that moment that Cage wrote the aforementioned letter to Tudor detailing his behind-the-scenes politicking on behalf of the *Projections*.[12] Even at this juncture, he had begun to interpret Feldman's new notation in the context of Zen Buddhism: Lederman, he indicated, became more receptive to Feldman's music when its absence of conventional rhetoric ("the usual cause and effect thought") was explained with recourse to the philosophy of Daisetz Teitaro Suzuki, the great exponent of Zen whose writings had occupied Cage's thought during the preceding year. Such references to Eastern philosophy were further integrated into Cage's discourse after he fully embraced the role of chance in composition and began to publicly promote his new vision of a music stripped of ego, will, and agency. In so doing, he continued to draw upon Feldman's graph to make his case. This process is captured vividly in the first public talk he is known to have given after his turn to chance, the "Lecture on Something," which was delivered at the Artists' Club at 39 East Eighth Street on 9 February 1951.[13]

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midst of composing *Sixteen Dances*, Cage observed, "Feldman's music is extremely beautiful now. It changes with every piece, I find him my closest friend now among the composers here." Then noting that "[m]y music too is changing," Cage described the procedures underpinning portions of his *Sixteen Dances* and remarked that those methods brought him "closer to a 'chance' or if you like to an un-aesthetic choice." The piece was premiered first in piano reduction on 17 January 1951 and subsequently in its full instrumentation on 21 January; the latter concert would also mark the debut of Feldman's *Projection 2*, scored for similar forces. On the methodology of *Sixteen Dances*, including Cage's retention of a "free" style of composition in some of its movements, see Bernstein, "Cage and High Modernism," 199–201. Cage's letter to Boulez is contained in *The Boulez–Cage Correspondence*, ed. Jean-Jacques Nattiez, et al. (Cambridge: Cambridge University Press, 1993), 77–79. On Cage's chronology, see Patterson, "Appraising the Catchwords," 317–19.

[11] Near the end of his life, Cage speculated that the stimulus of two visual objects, both grid-like in design, may have prompted him to consider the *I Ching*'s hexagrams as a tool of composition: first, Feldman's graph, and second, a symbolic drawing used by D. T. Suzuki to illustrate one of his lectures on Zen at Columbia University. Much earlier, in the course of a 1970 interview, he also suggested that the grid-like charts of sonorities he employed in composing works such as the Concerto for Prepared Piano and *Sixteen Dances* may have been the prompt that drew his mind to the hexagrams. Cage's reference to Suzuki's drawing at Columbia must be inaccurate, however, as Suzuki did not lecture publicly there until March of 1951, after Cage's embrace of the *I Ching*. Cage was, however, acquainted with Suzuki's texts as early as January of 1950, and could have encountered such a drawing in their pages. See Cage, *I–VI*, 237–45; and Cage and Daniel Charles, *For the Birds* (Boston: Marion Boyers, 1981), 43. On Cage's relationship with Suzuki, see Patterson, "Appraising the Catchwords," 139–47.

[12] With *Sixteen Dances* having seen its premiere, Cage wrote to Tudor that he was presently returning to work on his Concerto for Prepared Piano. In composing the third movement of that work, he would employ chance operations via the *I Ching* for the first time. Yet nowhere in this personally and professionally intimate letter did he mention having already turned to that source, an unlikely omission had he already done so. Elsewhere in the letter, Cage mentions that he assisted Feldman in copying out some of his graph music, presumably *Projection 4*; indeed, the text of one page is written over an outline of Feldman's notation. The letter therefore helps to shore up the uncertain chronology of events during this period of the composers' friendship and supports Cage's recollection that Feldman's graph served as one influence on his embrace of the *I Ching*.

[13] Cage in known to have delivered four lectures at venues catering to artists on East Eighth Street between 1948 and 1952, although the date and specific location of each talk is a point of confusion in the literature. The "Lecture on Something" was first published in Philip Pavia's periodical *It is. A Magazine for Abstract Art* 4 (Autumn 1959): 73–78, and was reprinted in Cage, *Silence: Lectures and Writings* (Middletown, CT: Wesleyan University Press, 1961), 128–45. On the significance of

The talk's outward subject was, in fact, Feldman. Cage spoke of his friend's willingness, via graphic notation, to passively "accept" sounds arising in performance rather than to script every note on the page:

> Feldman . . . takes within broad limits the first [sounds] that come along. He has changed the responsibility of the composer from making to accepting. To accept whatever comes regardless of the consequences is to be unafraid or to be full of that love which comes from a sense of at-one-ness with whatever.[14]

Such a reading of Feldman's music implied something more than an indiscriminate attitude toward musical continuity, however; it suggested a silencing of the self. Because the graphically scored works were shaped in part by outside actors whose choices the composer ostensibly accepted, they stood for Cage as a perfect demonstration of the interpenetration of art and life.[15] Cage even extended Feldman's purported "acceptance" of outside sounds to include extraneous noises:

> [A]t the root of the desire to appreciate a piece of music, to call it this rather than that, to hear it without the unavoidable extraneous sounds—at the root of all this is the idea that this work is a thing separate from the rest of life, which is not the case with Feldman's music.[16]

But had Feldman himself actually endorsed the state of aesthetic impartiality, the "at-one-ness with whatever," claimed for him by Cage? Had their mutual quest for new sonic continuities truly morphed, for Feldman, into an attitude of catholic "acceptance" regarding all sonic content? And was the unusual notation of the *Projections*—their openness toward pitch, in particular—conceived in this spirit?

Most evidence suggests the contrary. In numerous essays and print interviews dating from the latter 1950s until his death, Feldman expounded upon his own conviction in an art grounded in the subjectivity of its creator, and in so doing articulated his implicit rejection of chance as a musico-philosophical doctrine.[17]

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this lecture to Cage's musical philosophy, see especially Pritchett, *The Music of John Cage*, 66–69. The most authoritative published source regarding the respective Eighth Street venues appears to be Natalie Edgar, ed., *Club Without Walls: Selections from the Journals of Philip Pavia* (New York: Midmarch Arts Press, 2007), esp. 45–49 and 148–78. Other sources include Irving Sandler, "The Club," in *Abstract Expressionism: A Critical Record*, ed. David Shapiro and Cecile Shapiro (Cambridge: Cambridge University Press, 1990), 48–58, and Sandler, *The Triumph of American Painting: A History of Abstract Expressionism* (New York: Harper & Row, 1970), 211–15.

[14] Cage, "Lecture on Something" (1951), in *Silence*, 129–30.

[15] As James Pritchett writes, "Feldman served as a model for Cage, an example of one who had accepted all possibilities—to an even greater degree than Cage himself had." Pritchett, *The Music of John Cage*, 67.

[16] Cage, "Lecture on Something" (1951), in *Silence*, 136.

[17] It was Feldman's contention that, for the artist, "there is no separation between what you do and who you are." Despite his commitment to the value of abstraction, he believed that an artist's proper subject matter was the self, or what his friend Philip Guston termed "the 'I.'" And he insisted, moreover, that the mark of his own creative presence remained embedded in his music after the last note was written, characterizing this trace of subjectivity with the word "touch." See Feldman, "Frank O'Hara: Lost Times and Future Hopes" (ca. 1966–68), in *Give My Regards*, 106; Brian O'Doherty, "Feldman Throws a Switch Between Sight and Sound," *New York Times*, 2 February 1964, Section 2, 11; and Feldman, "The Anxiety of Art" (ca. 1968), in *Give My Regards*, 30. It must be noted, however, that Feldman's stance vis-à-vis Cage's philosophy was complicated by his occasional willingness to apply the terms "chance" and "indeterminate" to his own music in texts and interviews. In such

In a revealing letter of 1975, he wrote that his graphically notated music of the early 1950s "on its own terms *controlled* the 'experience'"—a decidedly un-Cagean phrase emphasizing the retention, not repudiation, of compositional authority and intent.[18] Even if the notation of such pieces allotted performers certain discretion in shaping the realization of the works, Feldman implied that it nevertheless permitted the composer to direct the listener's "experience" just as if the music had been written in conventional notation. The compositional means by which that control was exerted—the notation's specific "terms"—were simply different.

Feldman, however, was less forthcoming about his intentions at the start of his career, and the only major lecture he is known to have given during the era has not survived. The testimony of others nevertheless supports his later assertion that he disagreed with Cage's philosophy of non-intention from the outset. Christian Wolff, who took informal composition lessons from Cage at the time Feldman was writing his *Projections* and *Intersections*, has in years since recalled "expression" and "intuition" as being components of Feldman's early aesthetic.[19] Likewise, Henry Cowell's 1952 profile of the emergent New York School identifies Feldman as "more subjective" in his aesthetic orientation than the others.[20] Ironically, it was Cage himself who best revealed the disjuncture between the caricature he drew in the "Lecture on Something" and Feldman's own understanding of his graphic notation. When Cage produced a print version of the lecture for publication in 1959, he prefaced the text with a telling anecdote: "In the general moving around and talking that followed my *Lecture on Something* (ten years ago at the Club), somebody asked Morton Feldman whether he agreed with what I had said about him. He replied, 'That's not me; that's John'."[21]

In light of the scarcity of sources documenting Feldman's attitudes about his *Projections* at the time he composed them, this pithy rejoinder of 1951 speaks volumes. Having conceived his first graphic works before, not after, Cage's full embrace of chance, Feldman was likely driven by goals of an essentially stylistic nature. Chief among these was his need to enact new and unheard sonic "continuities" by eschewing familiar musical relationships, and especially those patterns of

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cases, however, the terms apparently served only as shorthand descriptions of notational features of his music (e.g., the handling of pitch in the *Projections*), not as acknowledgements of sympathy with Cage's philosophical doctrine of non-intention. Christian Wolff drew upon the term "chance" in the same sense when he remarked that Feldman "used chance without it interfering with expression." Christian Wolff, "Taking Chances," *Music and Musicians* 17/9 (May 1969): 38.

[18] Feldman, Letter to William M. Colleran, 16 December 1975, in the Morton Feldman Collection, Paul Sacher Foundation. On Feldman's desire to "control the experience" of his music, see also his essay "Some Elementary Questions" (1967), in *Give My Regards*, 63–66. Sebastian Claren discusses the concept in *Neither*, 52–53.

[19] Wolff, "Taking Chances," 38, and Wolff, "Experimental Music around 1950 and Some Consequences and Causes (Social-Political and Musical)," *American Music* 27/4 (Winter 2009): 427.

[20] Henry Cowell, "Current Chronicle: New York," *Musical Quarterly* 38/1 (January 1952): 123–36. Earle Brown is not mentioned in the article, as his association with Cage had not yet begun. Pierre Boulez is, however, included, a reminder of his association with Cage, Tudor, Feldman, and Wolff at the outset of the 1950s.

[21] Cage, "On Hearing Morton Feldman's New Recording," *It is. A Magazine for Abstract Art* 4 (Autumn 1959): 73, reprinted in *Silence*, 136. Cage appears to have erred in recollecting, from the vantage point of 1959, that he delivered the lecture "ten years ago at the Club." See also Claren, 50–53.

pitch inscribed to his memory by the force of habit. Although long identified as a foundational principle linking the composers of the New York School at the outset of their affiliation, this effort to rid music of familiar continuities was not, however, coterminous with the essentially philosophical doctrine of Cagean non-intention.[22] Yet its capacity to serve such an end, recognized by Cage from the start, raises a valuable question. Having removed pitch from the calculus of composition, how could Feldman subsequently claim to "control the experience" of his music? The answer resides not the notation's limitations, but in its strengths, including the new feeling for musical space it engendered in the composer.

Varèse, Wolpe, and Musical Space

Despite Cage's close association with Feldman in the public eye, other role models in the budding composer's life may have exerted greater influence over his turn toward graphic notation. The first of these was Edgard Varèse, whom he met while studying with Stefan Wolpe during the 1940s. Although he never took formal composition lessons with Varèse, Feldman came to view the expatriate Frenchman as his greatest musical mentor.[23] In the formative years of Feldman's aesthetic development, Varèse's distinctively spatialized conception of musical composition and concomitant interest in graphic notation appear to have left a strong mark on the young composer.

Evidence of that influence is apparent in the title Feldman assigned to his new works, for "projection" was a term at the core of Varèse's musical thought.[24] Tellingly, however, Feldman never drew attention to this bit of shared terminology in print. In Varèse's usage, "projection" was a fluid concept that functioned on both literal and figurative levels.[25] Literally, the term denoted the physical conveyance of sound in space, the process of its transmission outward from a vibrating source. Convinced that this acoustical phenomenon constituted an essential, if neglected, aspect of musical experience, he alluded to it often in his lectures and writings. Most famously, he recalled his youthful exposure to Beethoven's Seventh Symphony at the Salle Pleyel in Paris:

[22] Perhaps the earliest articulation of the principle was provided by Cowell in "Current Chronicle: New York," 134.

[23] Feldman's reverence for Varèse pervades both his music and texts. The same composer who set the metronome marking of his *Projections* at "72 or thereabouts" in order to match the tempo of *Intégrales* would thereafter use the platform of his first published essay to single out Varèse for praise. Years later, given the opportunity to name his own chair at SUNY–Buffalo, Feldman became that institution's Edgard Varèse Professor of Music. See Feldman, "Sound, Noise, Varèse, Boulez" (1958), in *Give My Regards*, 1–2, and Claren, *Neither*, 54.

[24] Claren was perhaps the first author to speculate on the relationship between Feldman's works and Varèse's notion of projection; see his *Neither*, 45–47.

[25] On Varèse's multifaceted usage of the term, see Malcolm MacDonald, *Varèse: Astronomer in Sound* (London: Kahn and Averill, 2003), 139–42, and, for a somewhat different view, Jonathan W. Bernard, "Varèse's Space, Varèse's Time" in *Edgard Varèse: Composer, Sound Sculptor, Visionary*, ed. Felix Meyer and Heidy Zimmermann (Woodbridge, Suffolk: The Boydell Press for the Paul Sacher Foundation, 2006), 149–50. Heidy Zimmermann has shown that Varèse's references to projection stretch back to 1916, making it one of the most enduring of his rhetorical tropes. See Zimmermann, "Recycling, Collage, Work in Progress: Varèse's Thought in Speech and Writing" in *Edgard Varèse: Composer, Sound Sculptor, Visionary*, 267.

> Probably because the hall happened to be over-resonant . . . I became conscious of an entirely new effect produced by this familiar music. I seemed to feel the music detaching itself and projecting itself into space.[26]

Throughout his career, Feldman displayed a closely related concern with the acoustical decay of musical sound, a concern apparently piqued by his early exposure to Varèse's notion of projection. He recalled an impromptu exchange on the street during the 1940s in which the older composer offered a piece of cryptic advice, telling him to be mindful of the time required for sound to travel from the concert stage to the audience. It was a transformative moment for Feldman, awakening him to what he would elsewhere characterize as the "acoustical reality" of music. "From then on," he recalled, "I started to listen."[27]

Feldman, like Varèse, spoke of his music in evocative, if imprecise terms, and his rhetorical style was likewise defined by a strain of idiosyncratic spatial metaphors. For Varèse, the acoustical experience of projection produced a sensation of sound "leaving us with no hope of being reflected back," an impression "akin to that aroused by beams of light sent forth by a powerful searchlight."[28] Compare these words to Feldman's description of acoustical decay as a "departing landscape," the sensation of sounds "leaving us rather than coming toward us."[29] We should bear in mind these rhetorical parallels when considering the "Lecture on Something," for in that talk Cage informs us that Feldman spoke not of "sounds" in his graph music but instead, enigmatically, of "shadows"—a visual metaphor of departure and absence, or projection into space.[30] The quality of sonic departure and decay indeed pervades Feldman's works of 1950, which are more texturally sparse than those of the late 1940s. Bracketed by periods of silence, his sounds are often provided ample time to "project," their decay stretching like shadows across voids that sometimes span entire measures.

For Varèse, however, the term projection carried shades of meaning beyond the one explored above, for it also spoke to the abstract relationship among sounds in a compositional framework. Just as the materials of music are projected acoustically in the space of a concert hall, they are also projected compositionally within the vertical and horizontal space of a score. In this figurative sense, the term resonates with other action-oriented words in Varèse's prose meant to convey the dynamic

[26] "Varèse Envisions 'Space' Symphonies," *New York Times*, 6 December 1936. Quoted, but misdated, in MacDonald, *Varèse*, 139.

[27] Feldman, "The Future of Local Music" (1984), in *Give My Regards*, 170. On "acoustical reality," see Walter Zimmermann, "Conversation Between Morton Feldman and Walter Zimmermann, November 1975," in *Morton Feldman Says: Selected Interviews and Lectures, 1964–1987*, ed. Chris Villars (London: Hyphen Press, 2006), 52.

[28] The quoted passage appears in the assortment of Varèse's writings collected by Chou Wen-Chung under the title "The Liberation of Sound" in *Contemporary Composers on Contemporary Music*, ed. Elliott Schwartz and Barney Childs (New York: Holt, Rinehart and Winston, 1967), 197.

[29] Feldman, "The Anxiety of Art" (1965) in *Give My Regards*, 25. To be sure, the application of these concepts in the music of Varèse and Feldman, respectively, yields strikingly different results. The same may be said for the other instances of influence postulated in this article, which entail the appropriation and interpretation of abstract concepts prior to their compositional "translation" into sound.

[30] Cage, "Lecture on Something" (1951), in *Silence*, 131.

interplay of his materials as entities in a compositional arena.[31] Despite the vagaries embedded in its design—or perhaps *because* of them—Feldman's new notation drew his attention to the spatiality of that arena, laying out before the composer's eyes the shape of his materials in a more explicit manner than conventional notation could allow. Through his experience with the *Projections* his creative method would grow increasingly oriented toward visual experience.

In the months immediately before Feldman composed the works, Varèse had been lecturing in Germany. Upon his return to the United States, he was invited to speak before the Artists' Club, the same venue where Cage would deliver the "Lecture on Something" a few months later. Long drawn to the visual arts, Varèse obliged, and in November 1950 spoke to a crowd so large and enthusiastic that some of the painters in attendance grew concerned about the structural integrity of the loft that housed the meeting.[32] His talk carried the same title as his recent lectures in Frankfurt, Berlin, and Munich: "Music, an Art-Science."[33]

One would expect that Feldman witnessed the event, and oral history thankfully confirms the fact: in a 1988 interview with Olivia Mattis, Cage recalled that he, Feldman, and Wolpe together attended Varèse's lecture at the Artists' Club.[34] There they had the opportunity to hear the older composer speak on his notion of sound projection, including his youthful discovery of the concept at the Salle Pleyel.[35] Moreover, the lecture included a plea for the development of "new notation" to serve the needs of a technologically enriched music.[36] In his other talks and essays, Varèse sometimes went so far as to characterize this new notation as being specifically "graphic" in character. For example, in an earlier lecture of 1936 he remarked:

> And here it is curious to note that at the beginning of two eras, the Mediaeval primitive and our own primitive era (for we are at a new primitive stage in music today), we are faced

[31] On the subject of musical space in Varèse, see Jonathan Bernard, *The Music of Edgard Varèse* (New Haven, CT: Yale University Press, 1987), esp. chapters 2 and 3. In analyzing Varèse's music, Bernard draws upon the term "projection" to denote the spatial transference of a given pitch structure to a new "pitch/registral level," 48.

[32] See Pavia, *Club Without Walls*, 160; L. Alcopley, "The Club," *Issue: A Journal for Artists* 4 (1985): 47; and Olivia Mattis, "The Physical and the Abstract: Varèse and the New York School," in *The New York Schools of Music and Visual Art*, ed. Steven Johnson (New York: Routledge, 2002), 64. Although Pavia recorded the date of Varèse's lecture as 28 October, the correct date appears to be 10 November, as indicated in the composer's datebook. Edgard Varèse Collection, Paul Sacher Foundation.

[33] See Zimmermann, "Recycling, Collage, Work in Progress," 267–71, on the documentary complexity resulting from Varèse's reuse of his earlier texts to create new lectures and essays.

[34] See Austin Clarkson, "The Varèse Effect: New York City in the 1950s and 60s," in *Edgard Varèse: Composer, Sound Sculptor, Visionary*, 373. Clarkson draws upon excerpts of Mattis's unpublished interview with John Cage of 28 July 1988.

[35] Although a complete English-language version of Varèse's 1950 lecture "Music, An Art-Science" is not extant, fragments of it exist in the Edgard Varèse Collection, Paul Sacher Foundation, as does a rough German translation produced for radio broadcast in Berlin and entitled "Die heutige musikalische Wisenshaft" [*sic*]. The anecdote regarding "sound projection" at the Salle Pleyel appears in the latter. See Zimmermann, "Recycling, Collage, Work in Progress," 268.

[36] The German translation of Varèse's 1950 lecture ("Die heutige musikalische Wisenshaft" [*sic*]) contains the line "unsere Instrumente und unsere Notenschrift müssen verändert warden" ("our instruments and our notation must be changed"). My thanks to Heidy Zimmermann for her assistance in this matter.

> with an identical problem: the problem of finding graphic symbols for the transposition of the composer's thought into sound.[37]

Such references to graphic notation in Varèse's lectures were typically couched in the future tense and tethered to his long-standing wish to compose electronic music, a wish soon to be realized in the tape interpolations (1952–54) for *Déserts*. Although it remains unclear whether Varèse drew upon graphic sketches in conceiving of that specific work, his use of such notation in representing the later *Poème électronique* (1957–58) is well documented.[38] Feldman appears to have taken his mentor's advice in a different direction, producing the postwar avant-garde's first-known graphic scores intended for use in performance by instrumentalists. Was Varèse's lecture the prompt? Alongside Feldman's appropriation of the term "projection" as the title for his new series of works, the timing of his turn toward graphic notation offers compelling, if inconclusive, evidence.

It is appropriate that Feldman's introduction to Varèse should have come through the hands of his teacher, Wolpe, for Varèse and Wolpe shared much in common.[39] This was particularly the case after the latter settled in New York City in 1938 and began to deploy chromatic pitch collections within what he called "constellatory space," drawing upon principles of symmetry and asymmetry.[40] During the 1940s, when Feldman studied with him, Wolpe's agenda was "to break up hierarchical, thematic space, and create a mobile, permeable, open space in which a variety of shapes and actions can move freely," according to Austin Clarkson.[41] Apart from his contact with Varèse, then, Feldman surely had ample opportunities to discuss the spatialization of sound in composition lessons with Wolpe during the period preceding his epiphany regarding graphic notation.

Despite the commonalities between Wolpe and Varèse, Feldman responded in different ways to each, publicly professing his admiration of Varèse throughout his career while conveying ambivalence toward Wolpe. To be sure, he valued his former teacher's fluid notion of "shape" in music, a concept he later found useful in describing the character of a given gesture or harmonic voicing.[42] To Wolpe, however, such shapes existed in a dialectical relationship with one another in the musical continuum, their interaction ultimately generating both conflict and

[37] This passage appears in the 1936 typescript entitled "Music and the Times" in the Edgard Varèse Collection, Paul Sacher Foundation and is reproduced in "The Liberation of Sound," 198.

[38] These graphs, whose origins lie in jazz improvisation, are discussed in Mattis, "From Bebop to Poo-wip: Jazz Influences in Varèse's *Poème électronique*," in *Edgard Varèse: Composer, Sound Sculptor, Visionary*, 309–17. See also the plate on p. 343.

[39] Varèse's earliest biographer, Fernand Ouellette, lists Wolpe among the composer's New York friends; see Ouellette, *Edgard Varèse*, trans. Derek Coltman (New York: The Orion Press, 1966), 210. Feldman would later describe Varèse not only as Wolpe's "big artistic friend" but also as Wolpe's "mentor." Feldman, "On Stefan Wolpe" in *Morton Feldman in Middelburg: Words on Music, Lectures and Conversations*, ed. Raoul Mörchen, vol. 2 (Köln: MusikTexte, 2008), 552.

[40] For an explanation of these methods, see Wolpe, "Thinking Twice," in *Contemporary Composers on Contemporary Music*, 274–307; and "On Proportions," *Perspectives of New Music* 34/2 (Summer 1996): 132–84.

[41] Clarkson, "Introduction," in *On the Music of Stefan Wolpe: Essays and Recollections*, ed. Clarkson (Hillsdale, NY: Pendragon, 2003), 17.

[42] See Feldman, "On Stefan Wolpe," 268, and "I Want to Thank" (1986), in *Give My Regards*, 201.

coherence. It was his commitment to the idea of dialectical renewal that led Wolpe to object to Feldman's music during his composition lessons of the 1940s, precipitating their frequent arguments.[43] Although he juxtaposed unlike musical materials in his own work, Feldman had little interest in using these oppositions in the manner his teacher prescribed. As a result, Wolpe criticized his musical approach as one of "negation" alone.[44] Feldman embraced this assessment: "I learned for myself how to do without synthesis," he later wrote, "without the whole idea of 'unified opposites'."[45] In this respect, he saw an ally in Varèse, whose conception of form and syntax—insofar as Feldman grasped it—could not be contained within the dialectical models Wolpe preached. By the 1960s, Feldman would define his own aesthetics of time and space in contradistinction to the terms "dialectical" and "rhetorical" in numerous essays and interviews.[46]

Ironically, however, Wolpe's methods served as a powerful influence on Feldman, if by way of negative example. They may, in fact, have helped to spur his development of graphic notation. In an essay written late in his life, Feldman explained how his teacher's love of binary logic filtered into his own musical thought. But whereas Wolpe concerned himself with the dialectical synthesis or reconciliation of opposites, Feldman treated them as "hurdles" or "obstacles to be jumped." In a startling passage, he wrote:

> I took this overall concept with me in to my own music soon after finishing my studies with Wolpe. *It was the basis of my graph music.* For example: the time is given but not the pitch. Or, the pitch is given but not the rhythm. Or, in earlier notated pieces of mine the appearance of octaves and tonal intervals out of context to the overall harmonic language. I didn't exactly think of this as opposites—but Wolpe taught me to look on the other side of the coin.[47]

The passage suggests that Feldman's interest in the juxtaposition of unlike material during his student years was at once an offshoot of Wolpe's dialectics and also a corruption of it.[48] Moreover, the statement affirms that the notational design of the *Projections* ("the time is given but not the pitch") and the format of Feldman's later free-duration music ("the pitch is given but not the rhythm") are indebted to the same mode of thought. Faced with a compositional barrier, he chose not to wrestle

[43] Regarding Feldman's opposition to Wolpe's need for synthesis, see Feldman, "On Stefan Wolpe," 552–68, and esp. 554. On their arguments, see Feldman, "Liner Notes" (1962), in *Give My Regards*, 3.

[44] See Feldman, "Crippled Symmetry" (1981), in *Give My Regards*, 146.

[45] Feldman, "On Stefan Wolpe," 554.

[46] See Feldman, "Some Elementary Questions" (1967), 66, "Between Categories" (1968), 86, and "Give My Regards to Eighth Street" (1968), 100, all in *Give My Regards*. Christian Wolff echoes Feldman's sentiment when he recalls that the composers of the New York School admired Varèse for conceiving of sound "simply as sound rather than as a kind of byproduct of the logic of pitch and harmony relationships." Wolff, "Experimental Music around 1950," 426.

[47] Feldman, "To Have Known Stefan Wolpe Well," typescript in the Morton Feldman Collection, Paul Sacher Foundation. Italics mine. Excerpted in Clarkson, "Stefan Wolpe and Abstract Expressionism," in *The New York Schools of Music and Visual Art*, 91 and 95.

[48] The point is made especially clear by Feldman's reference, in the quoted passage, to an example that applies directly to his student work *Illusions*, composed during the late 1940s ("in earlier notated pieces of mine the appearance of octaves and tonal intervals out of context to the overall harmonic language").

with the problem in the course of composing his music, as his teacher might have, but rather to "jump the obstacle" entirely. In the case of the graph works, Feldman sought to escape the rhetorical implications of pitch relations (his "obstacle") by eliminating them as a compositional concern, looking instead to the "opposite side of the coin": a music defined foremost by timbre and texture.[49]

Wolpe was not merely Feldman's teacher during the 1940s, but the hub of his musical life.[50] It was he who introduced Feldman to Varèse, and in all likelihood he who stoked Feldman's enthusiasm for Webern; indeed, Wolpe himself had studied with Webern a little more than a decade before taking on Feldman as a student. Furthermore, when Feldman attended Mitropoulos's performance of Webern's Op. 21 in January 1950 and bumped into John Cage, it was not the first time their paths had crossed: Cage had previously attended one of the informal gatherings held by Wolpe and his wife Irma for their students at their Cathedral Parkway home.[51] It stands to reason that the music and thought of all four of these composers—Wolpe, Webern, Varèse, and Cage—helped to shape Feldman's conception of the *Projections*. In the music of Webern, he was exposed to a fragmentary, non-thematic treatment of musical continuity, a delicacy of timbre, a sparseness of texture, and a pervasive pianissimo, all qualities he would adopt in several works composed during 1950 and 1951. Through Wolpe's tutelage, he was encouraged to think in terms of dialectical oppositions, a framework that led him inadvertently to conceive of a notational format in which pitch logic is removed from the terms of composition. Varèse fostered his appreciation of the phenomenon of "projection" and, with it, his recognition of the value inherent in sound-*qua*-sound, apart from its utility in building musical arguments. Varèse and Wolpe moreover shared a spatialized conception of music in keeping with the one Feldman himself would cultivate through the *Projections*, with Varèse even going so far as to proselytize on behalf of graphic notation. And what of Cage? Despite his subsequent misinterpretation of Feldman's graphic works, Cage's enthusiastic presence in his friend's life in 1950 no doubt fostered an atmosphere conducive to radical experimentation, as both composers sought out new methods to subvert old continuities, musically and historically.

Feldman Reclaims the Narrative

Soon after harnessing the *I Ching* to compose works in fixed notation, Cage began to produce music that was, in his famous formulation, "indeterminate with respect to its performance," a conceptual orientation that offered him an alternate route to the goal of non-intention. The first of these indeterminate works, 1951's *Imaginary*

[49] Such an interpretation of Feldman's intent is reinforced by his private musings in a sketchbook dating from the period. There, he wrote about creating "a sound experience divorced from harmony as well as counterpoint and melody," and one emphasizing instead timbre. Feldman, MS in Sketchbook 2, in the Morton Feldman Collection, Paul Sacher Foundation.

[50] On the breadth of Wolpe's social and musical connections during this period, see Brigid Cohen, "Diasporic Dialogues in Mid-Century New York: Stefan Wolpe, George Russell, Hannah Arendt, and the Historiography of Displacement," *Journal of the Society for American Music* 6/2 (May 2012): 143–73.

[51] See Clarkson, "Conversation About Stefan Wolpe," in *Morton Feldman Says*, 98.

Landscape No. 4 for twelve radios, was dedicated to Feldman.[52] If Feldman had unwittingly assisted his friend's philosophical transition to non-intention through his proto-indeterminate *Projections*, it was nevertheless Cage's philosophical notion of indeterminacy, not his younger colleague's aesthetic view, that received the greatest public exposure thereafter. Perhaps for that reason Feldman sought to reframe the story of his music's genesis and meaning in a set of LP liner notes written in 1962, twelve years after the *Projections* were conceived. In that text, he linked the *Projections* not with Cage's Zen-inspired poetics of aesthetic detachment but rather with the model of willful, creative action provided by what he termed "the new painting."[53] The essay marked his earliest attempt in print to draw attention to the role of abstract expressionism as a model for his musical aesthetics and methods.[54]

Feldman's comments on the *Projections* merit quoting in full:

> The new painting made me desirous of a sound world more direct, more immediate, more physical than anything that had existed heretofore. Varèse had elements of this. But he was too "Varèse." Webern had glimpses of it. But his work was too involved with the disciplines of the twelve-tone system. The new structure required a concentration more demanding than if the technique were that of still photography, which for me is what precise notation has come to imply.
>
> *Projection II* for flute, trumpet, violin and cello—one of the first graph pieces—was my first experience with this new thought. My desire here was not to "compose," but to 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 with regard to pitch.[55]

Feldman's striking claim to cross-disciplinary influence from visual art overshadows his careful, but terse, dismissal of the *musical* role models most important to his maturation as a young composer. Varèse, he acknowledges, possessed "elements" of

[52] *Imaginary Landscape No. 4*, in contrast to the contemporaneously composed *Music of Changes*, is "indeterminate with respect to its performance" insofar as the composer could wield no control over the specific radio broadcasts to which his instruments were tuned during performance. The next year, with his *Music for Carillon No. 1* of 1952, Cage began to compose music designed to yield varied realizations from performance to performance specifically due to properties inherent in the music's notation. *Music for Carillon No. 1*, like Feldman's *Projections* and *Intersections*, was notated on graph paper.

[53] Feldman, "Liner Notes" (1962), in *Give My Regards*, 3–7. The essay was written to serve as notes for the recording *Feldman/Brown* (Time Records 58007/S8007) and was originally published as "Liner Notes" in *Kulchur* 2/6 (Summer 1962): 57–60. Feldman's only prior commentary on the *Projections* in print came in the form of a brief description of their notational format submitted to Cage for inclusion in the article "Four Musicians at Work," published in *Transformation* 1/3 (1952): 168–72. Feldman's portion of that article is reprinted in *The Boulez–Cage Correspondence*, ed. Nattiez, 104.

[54] For studies specifically concerning Feldman and visual art, see especially Jonathan Bernard, "Feldman's Painters," in *The New York Schools of Music and Visual Arts*, 173–215; Steven Johnson, "Jasper Johns and Morton Feldman: What Patterns?" in ibid., 217–47; Johnson, "*Rothko Chapel* and Rothko's Chapel," *Perspectives of New Music* 32/2 (Summer 1994): 6–53; Amy C. Beal, "'Time Canvasses': Morton Feldman and the Painters of the New York School," in *Music and Modern Art*, ed. James Leggio, (New York: Routledge, 2002), 227–45; and the essays in the exhibition catalog *Vertical Thoughts: Morton Feldman and the Visual Arts*, ed. Seán Kissane (Dublin: Irish Museum of Modern Art, 2010).

[55] Feldman, "Liner Notes" (1962), in *Give My Regards*, 5–6.

the "new sound world" that he sought in composing the *Projections*, but his music is brushed aside for being too personal or idiosyncratic—that is, "too 'Varèse.'"[56] The remark is curious in light of the provenance of the term "projection," a word Feldman deployed in this very same statement to define the *raison d'être* of his own works ("to project sounds into time. . ."). Webern had "glimpses" of this imagined sound ideal, Feldman tells us, but his music was hamstrung by its methodological rigor ("the disciplines of the twelve-tone system"). In a biographical précis preceding the passage quoted above, Feldman cites Wolpe, too, but gives him none of the credit he would allot to him later in life. "All we did was argue about music," he recalls of his lessons, "and I felt I was learning nothing." Indeed, the negative references to musical "rhetoric" and "relationships" in the quoted passage strike to the heart of their differences.

In the same statement, Feldman also addressed Cage's presence in his life at the time the *Projections* were composed, reflecting on the asymmetry that defined their early relationship. After describing Cage's expansive top-floor loft (a space affording "a magnificent view"), Feldman wrote, "I too moved into that magic house, except that I was on the second floor, and with just a glimpse of the East River. I was very aware at the time of how symbolically I felt that fact."[57] He credited Cage with providing him with much needed "appreciation and encouragement," but reminded readers that the source of his creativity resided in his own intuition, not the influence of others: "I sometimes wonder how my music would have turned out," he wrote, "if John had not given me those early permissions to have confidence in my instincts." In fact, Feldman explicitly downplayed the possibility that any meaningful musical exchanges transpired with Cage, instead directing attention to the formative role of visual art:

> There was very little talk about music with John. Things were moving too fast to even talk about it. But there was an incredible amount of talk about painting. John and I would drop in at the Cedar Bar at six in the afternoon and talk with artist friends until three in the morning, when it closed. I can say without exaggeration that we did this every day for five years of our lives.[58]

To the contrary, Feldman *was* exaggerating with this claim, and in more than one respect.[59] Justifiably eager to disentangle his work from his friend's Zen-influenced interpretations, he had begun a process of disowning the very possibility of Cage's influence while aligning his music instead with the discourse associated with abstract

[56] Cage criticized Varèse similarly a few years earlier: "Rather than dealing sounds as sounds, he deals with them as Varèse." Cage, "Edgard Varèse" (1958), in *Silence*, 84.

[57] Feldman, "Liner Notes" (1962), in *Give My Regards*, 5.

[58] Ibid.

[59] Cage, having been party to Feldman's breakthrough with graphic notation, having assisted him in copying some of the resulting works, and having served as his *de facto* public-relations agent, understandably took issue with Feldman's suggestion that they had rarely discussed music in the early 1950s. See Feldman's remarks in R. Wood Massi, "Captain Cook's First Voyage: An Interview with Morton Feldman," in *Morton Feldman Says*, 217–27. Feldman's claim about the Cedar Bar is also suspect, for his friendship with Cage was rocked by many disagreements between 1951 and 1954 that left the two composers silent toward one another for extended periods of time. Indeed, the most harmonious period of their friendship may have been its first year.

expressionist painting. In subsequent years he would rail against the notion that Cage had shaped the direction of his music in 1950, insisting, "my music didn't change when I met Cage, in fact it's the opposite: his music changed when he met me."[60] More accurate still is the proposition that these two composers changed each other, if in ways that resist easy summary.

Although Feldman's ambivalence toward his friend may have been well founded, some of his subsequent efforts to assert his creative autonomy were misleading. Despite the abundance of evidence proving that he composed the *Projections* nearly a year after his association with Cage began, he made a forthright claim for the opposite order of events in an interview of 1973. He recounted,

> In the Winter of 1950 I went to Carnegie Hall to hear Mitropoulos conduct the New York Philharmonic in the Webern Opus 21 . . . *I'd already composed my graph pieces*, the first of their kind, but I was vastly unknown. . . . At intermission I went out to the inner lobby by the staircase, and there was John Cage.[61]

The claim reads less like a slip of memory than an ill-conceived exercise in biographical revisionism aimed to assert his independence from a better-known colleague.

Painting and Feldman's "Abstract Sonic Adventure"

Feldman's willingness to take liberties with the historical record might raise doubts about the veracity of his other claims regarding the *Projections*, including his testimony about the importance of "the new painting" to his conception of those works. By drawing attention to visual art as the key source of his inspiration, was he merely diverting attention from the musical figures looming over his development at the time he conceived his graphically notated music? In fact, by examining his words carefully we can see that he never claimed painting as an influence on the *genesis* of his graphic notation or on the series of *Projections* as a whole. As his 1962 liner notes indicate, it was *Projection 2*, not *Projection 1*, that marked his "first experience" with a conception of musical composition modeled upon visual art. Indeed, evidence hints that *Projection 2* signaled a new beginning for Feldman. In the collection of his manuscripts at the Paul Sacher Foundation, all five works of the *Projection* series are preserved in neat copies within a small notebook of graph paper where the composer apparently transferred them after drafting them elsewhere. Yet *Projection 2* does not begin on the page following the first work. Instead, it appears upside down at the notebook's opposite end, which can thereby serve as the book's front; the remaining *Projections* then follow in order.[62] Scored for a mixed quintet of flute, trumpet, violin, cello, and piano, *Projection 2* marked the start of Feldman's engagement with graphic notation as a means to control ensemble texture and timbre on a global level, and as a result the work's style is noticeably different from

[60] Quoted in Paul Griffiths, "Morton Feldman," *Musical Times* 113/1554 (August 1972): 758; and cited in Claren, 48. Feldman made the same claim in Clarkson, "Conversation About Stefan Wolpe," 110–11, where he furthermore characterized Cage as a "synthesis" of himself and Boulez.

[61] Feldman, "I Met Heine on the Rue Fürstemberg" (1973), in *Give My Regards*, 114, originally published in the *Buffalo Evening News*, 21 April 1973. Emphasis mine.

[62] Feldman, MSS in Sketchbook 1, in the Morton Feldman Collection, Paul Sacher Foundation.

that of *Projection 1*, scored for solo cello. It stands to reason that this change in instrumentation itself may have pushed him to conceive of the graph format anew in terms of painting.

Other evidence clearly confirms that Feldman had begun to draw parallels between musical composition and painting at least as early as 2 February 1951, a month after he composed *Projection 2.* It was on that date—a week before Cage would deliver the "Lecture on Something"—that Feldman himself spoke before the assembled painters at the Artists' Club, giving a talk entitled "The Unframed Frame." Although the text of the lecture has not survived, the few available clues regarding its content are illuminating. Brief notes written in a private journal by the club's founder, Philip Pavia, record the following message from Feldman's lecture: "music needs a plane as in painting."[63] The search for such an "aural plane" would, in fact, occupy his attention for much of his career, serving as an important heuristic device in his creative process.[64] Three pages of undated, handwritten text preserved in one of Feldman's sketchbooks from the period of the *Projections* also speak to his early efforts to reconcile the temporal continuity of music with the sense of spatiality he witnessed in visual mediums, including painting.[65] Such an association would have been easily cultivated in the artistic laboratory of the Artists' Club, where space itself served as a frequent, if nebulous, topic of conversation, and moreover one in which Feldman's musical colleagues and mentors participated alongside visual artists.[66]

Employing his new notational format to compose small chamber works, Feldman exploited the visual potential of the graph to its fullest. Christian Wolff, a witness to his creative process, recalled, "He used to put sheets of graph paper on the wall, and work them like paintings. Slowly his notations would accumulate, and from time to time he'd stand back and look at the overall design."[67] The visual relationships among instrumental parts in the score constituted the building blocks of such a design. Although Feldman initiated the *Projection* series with a work for unaccompanied cello, the format served him best as a means of realizing what was an inherently visual conception of ensemble texture and timbre. As he himself would later describe:

> What I do is sensitize the whole thing and then I tie it together. It's like a painter. What's a painter got? Form and amounts—touch, frequency, intensity, density, ratio, color. It's just the spatial relationship and the density of the sounds that matters. Any note will do as long as it's in the register.[68]

His manuscript paper on the wall, the composer would attend to these spatial relationships among individual voices and their various combinations, often using

[63] Pavia, *Club Without Walls*, 161.

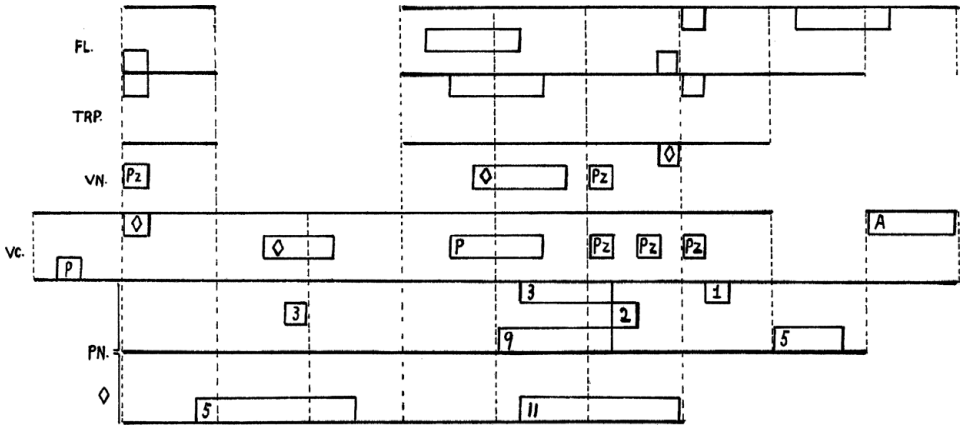
[64] See, for example, Feldman's essay "Between Categories" (1968), in *Give My Regards*, 84–85.

[65] Feldman, "Structure and the Structural Cell," MS in Sketchbook 2, the Morton Feldman Collection, Paul Sacher Foundation.

[66] See, for example, Hilda Morley Wolpe, "The Eighth Street Club, from *A Thousand Birds*," in Clarkson, *On the Music of Stefan Wolpe*, 105.

[67] Wolff, "Taking Chances," 38.

[68] Quoted in O'Doherty, "Feldman Throws a Switch," 11.



Example 3. Feldman, Projection 2 (1951), 6. Copyright © 1962 by C. F. Peters Corporation. Used by permission.

the term "weight" to describe the combination of timbre, register, and density that lay at the forefront of his creative concerns.[69] Whether stacking blocks of sound atop one another, staggering them across the page like cantilevers, or juxtaposing them in dialogue or confrontation, he erected coarse spatial relationships that resulted in audible gestures. Such passages are especially apparent in *Projection 2* and *Projection 5*, the works scored for ensembles, where his gestures are seemingly drawn with broader strokes. If, as he implied, "the new painting" had become his chief model upon composing the second work of the series, these gestures are perhaps best understood as musical analogues to the kind of dense, painterly brushstrokes that inspired imitation among younger painters of Feldman's generation as the 1950s progressed. See, for example, the gradual manipulation of sonic weight that begins in the fifth "measure" of Example 3, taken from *Projection 2*. Following a characteristic period of silence, the composer staggers his instruments' individual entries and cut-offs over two bars, ultimately allowing the once-thick sonority to dissipate into a spatter of short, isolated notes, many marked *pizzicato*.[70] Silence follows, bracketing this event in space and time.

Specific control over pitch would have been superfluous to such an experimental approach to the compositional act, adding little to Feldman's effort to intuitively balance sonorities on the basis of their weight, and perhaps saddling his "direct, immediate, and physical" creative process with undue deliberation. The vagueness

[69] He highlighted the importance of "weight" in his brief 1952 statement published in "Four Musicians at Work," writing, "Weight for me does not have its source in the manipulation of dynamics or tension but rather resulting [*sic*] from a visual-aural response to sound as an image gone inward creating a general synthesis." Reprinted in *The Boulez–Cage Correspondence*, 104. Regarding his graph works, Feldman would later observe, "If I was interested in organizing anything, it was the timbre." Quoted in Griffiths, "Morton Feldman," 758.

[70] In this example, the numerals within boxes and rectangles indicate the number of tones to be sounded during a given entry. The lower stratum of the piano part, marked at the start of the system with a diamond symbol, here indicates keys to be silently depressed by the pianist. This action, which allows the piano strings to vibrate sympathetically, alters the sonic decay (or "projection") of other sounds in a given passage.

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in the graph's design stoked his drive for spontaneous expression, providing a more direct conduit to the work at hand.[71] Its inherent imprecision shared little with the imprecision of Cage's later notational experiments, intended to mask subjective expression, but instead resembled the loose form of control in a gestural artist's application of paint, where a less constrictive method was thought to draw the artist closer to the work by eliminating obstacles to its execution. In this respect, Feldman's case is comparable to that of Jackson Pollock, another artist who adopted a seemingly crude creative method in hopes of disabling the force of acquired habit and transforming his approach to the medium. Accused by some of abdicating control, Pollock objected, insisting instead on the primacy of a subjective voice within his work.[72]

Feldman's own insistence on such creative agency was poorly understood during his lifetime and remains stubbornly so today, even when his distance from Cage is acknowledged. To Paul Griffiths, for example, the Feldman of 1950–51 was a young musician "willing to join in [Cage's] pursuit of non-intention."[73] To Richard Taruskin, he was a composer aspiring to "achieve *l'acte gratuit*, the wholly unmotivated gesture."[74] Neither of these descriptions is entirely wrong, but both ignore what Feldman called "the opposite side of the coin": the fact that his graph enabled his creativity in certain respects while restricting it in others, affirming and renouncing in equal measure. Through its affirmations, the new notation sowed the seeds of a highly personal style rooted in a spatialized approach to the compositional act and distinguished by a special reverence for sonority.

In a different sense, however, Taruskin's *l'acte gratuit* is apt, for Feldman showed little patience when the motivations of others interceded in his work. In offering performers the ability to shape the content of his *Projections*, he was not soliciting their expressive input; indeed, the avoidance of such a culturally conditioned response in the domain of pitch was a central goal. To this end, the graph proved a failure: within three years he would abandon the format, frustrated in part by performers who took unforeseen liberties in interpreting his notation. Having relinquished his music to the world, he watched unhappily as it was transformed in the hands of others, from the musicians who brought too much of themselves to bear upon its interpretation, to the persuasive colleague whose "broadcast of faith" entailed much the same. In a sense, this transformational process would continue in the decades that followed, as newly developed forms of experimental notation were

[71] Recalling the year 1950, Feldman wrote, "What I began to look for, and what I soon found, was a process only vaguely outlined, an action only vaguely defined: *one draws more freely on unruled paper*." Feldman, "A Life without Bach and Beethoven" (1964), in *Give My Regards*, 15.

[72] In Hans Namuth and Paul Falkenberg's famous documentary film *Jackson Pollock '51*, Pollock insisted in voiceover narration, "When I am painting I have a general notion as to what I am about. I can control the flow of paint; there is no accident." This narration appears in transcript in Namuth, *Pollock Painting*, ed. Barbara Rose (New York: Agrinde, 1980), n.p. Feldman composed music for Namuth and Falkenberg's film in May 1951, four months after completing his *Projections*.

[73] Paul Griffiths, *Modern Music and After*, 3rd ed. (Oxford: Oxford University Press, 2011), 31.

[74] Richard Taruskin, *The Oxford History of Western Music*, vol. 5 (Oxford: Oxford University Press, 2005), 98.

harnessed by composers to contrasting ends, justified through divergent rationales, and subjected to myriad interpretations.

With this history in mind, Feldman's choice of title for his first series of graphic scores seems particularly fitting: the etymology of the term projection extends back to the practice of alchemy, where it was associated with transmutation, or the process of change that converts one substance into another. To unconditionally situate the *Projections* at the start of graphic notation's process of postwar "transmutation," however, would be to conceal the intergenerational conversations that ushered Feldman's works into existence—conversations, like those that followed, rife with misunderstandings and conceptual leaps. As a whole, this transformational process reveals less about the "acoustical reality" of music—so prized by Feldman—than about its social reality. Music may be physically altered by its transmission through a concert hall, but so, too, is it transformed as it passes along the trajectories that link the agents of its inspiration to those of its conception, realization, promotion, appropriation, and study. Along the circuitous course of these projections, Feldman's *Projections* occupy but a spot.

References

Alcopley, L. "The Club." *Issue: A Journal for Artists* 4 (1985): 45–47.

Beal, Amy C. "'Time Canvasses': Morton Feldman and the Painters of the New York School." In *Music and Modern Art*, ed. James Leggio, 227–45. New York: Routledge, 2002.

Berger, Arthur. "Music News." *New York Herald Tribune*, 28 January 1951.

Bernard, Jonathan W. "Varèse's Space, Varèse's Time." In *Edgard Varèse: Composer, Sound Sculptor, Visionary*, ed. Felix Meyer and Heidy Zimmermann, 149–55. Woodbridge, Suffolk: The Boydell Press for the Paul Sacher Foundation, 2006.

Bernard, Jonathan W. "Feldman's Painters." In *The New York Schools of Music and Visual Arts*, ed. Steven Johnson, 173–215. New York: Routledge, 2002.

Bernard, Jonathan W. *The Music of Edgard Varèse*. New Haven, CT: Yale University Press, 1987.

Bernas, Richard and Adrian Jack. "The Brink of Silence." *Music and Musicians* (June 1972): 7–8. Reprinted in *Morton Feldman Says: Selected Interviews and Lectures 1964–1987*, ed. Chris Villars, 43–49. London: Hyphen Press, 2006.

Bernstein, David W. "Cage and High Modernism." In *The Cambridge Companion to John Cage*, ed. David Nicholls, 186–213. Cambridge: Cambridge University Press, 2002.

Cage, John. "Edgard Varèse." In *Silence: Lectures and Writings*, 83–85. Middletown, CT: Wesleyan University Press, 1961.

Cage, John. "Forerunners of Modern Music." In *The Boulez–Cage Correspondence*, ed. Jean-Jacques Nattiez, et al., trans. Robert Samuels, 38–42. Cambridge: Cambridge University Press, 1993. Originally published in *The Tiger's Eye* (March 1949).

Cage, John. "Lecture on Nothing." In *Silence: Lectures and Writings*, 109–26. Middletown, CT: Wesleyan University Press, 1961.

Cage, John. Letter to David Tudor, n.d. [ca. 21–27 January 1951], David Tudor Papers, Getty Research Institute, Box 52.

Cage, John. "Lecture on Something." In *Silence: Lectures and Writings*, 128–45. Middletown, CT: Wesleyan University Press, 1961. Originally published in *It is. A Magazine for Abstract Art* 4 (Autumn 1959): 73–78.

Cage, John. *I–VI*. Middletown, CT: Wesleyan University Press, 1990.

Cage, John. "On Hearing Morton Feldman's New Recording." *It is. A Magazine for Abstract Art* 4 (Autumn 1959): 73.

Cage, John. *Silence: Lectures and Writings*. Middletown, CT: Wesleyan University Press, 1961.

Cage, John. "To Describe the Process of Composition Used in *Music of Changes* and *Imaginary Landscape No. 4*." In *Silence: Lectures and Writings*, 57–59. Middletown, CT: Wesleyan University Press, 1961.

Charles, Daniel. *For the Birds: John Cage in Conversation with Daniel Charles*. Boston: Marion Boyers, 1981.

Claren, Sebastian. *Neither: Die Musik Morton Feldmans*. Hofheim: Wolke Verlag, 2000.

Clarkson, Austin. "Conversation About Stefan Wolpe." In *Morton Feldman Says: Selected Interviews and Lectures 1964–1987*, ed. Chris Villars, 97–113. London: Hyphen Press, 2006.

Clarkson, Austin. "Stefan Wolpe and Abstract Expressionism." In *The New York Schools of Music and Visual Art*, ed. Steven Johnson, 75–112. New York: Routledge, 2002.

Clarkson, Austin. "The Varèse Effect: New York City in the 1950s and 60s." In *Edgard Varèse: Composer, Sound Sculptor, Visionary*, ed. Felix Meyer and Heidy Zimmermann, 371–81. Woodbridge, Suffolk: The Boydell Press for the Paul Sacher Foundation, 2006.

Clarkson, Austin. Introduction to *On the Music of Stefan Wolpe: Essays and Recollections*, ed. Austin Clarkson, 1–28. Hillsdale, NY: Pendragon Press, 2003.

Cohen, Brigid. "Diasporic Dialogues in Mid-Century New York: Stefan Wolpe, George Russell, Hannah Arendt, and the Historiography of Displacement." *Journal of the Society for American Music* 6/2 (May 2012): 143–73.

Cowell, Henry. "Current Chronicle: New York." *Musical Quarterly* 38/11 (January 1952): 123–36.

Edgar Natalie, ed. *Club Without Walls: Selections from the Journals of Philip Pavia*. New York: Midmarch Arts Press, 2007.

Feldman, Morton. "A Life without Bach and Beethoven." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 15–18. Cambridge, MA: Exact Change, 2000. Originally published in *Listen* (May/June 1964): 14.

Feldman, Morton. "Between Categories." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 83–89. Cambridge, MA: Exact Change, 2000. First published as "Mellan kategorierna" in *Nutida Musik* 12/4 (1968–69): 25–7.

Feldman, Morton. "Crippled Symmetry." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 134–49. Cambridge,

MA: Exact Change, 2000. Originally published in *Res* 2 (Autumn 1981): 91–103.

Feldman, Morton. "Doing it One Way and Doing it Another Way." In *Morton Feldman in Middelburg: Words on Music, Lectures and Conversations*, vol. 1, ed. Raoul Mörchen, 450–92. Köln: MusikTexte, 2008.

Feldman, Morton. "Frank O'Hara: Lost Times and Future Hopes." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 103–8. Cambridge, MA: Exact Change, 2000. Originally published in *Art in America* 60/2 (March–April 1972): 52–55.

Feldman, Morton. "Give My Regards to Eighth Street." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 93–101. Cambridge, MA: Exact Change, 2000. Originally published in *Art in America* 59/2 (March–April 1971): 96–99.

Feldman, Morton. "I Met Heine on the Rue Fürstemberg." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 112–21. Cambridge, MA: Exact Change, 2000. Originally published in the *Buffalo Evening News*, 21 April 1973.

Feldman, Morton. Letter to Louise Varèse, 10 December 1965. Morton Feldman Collection, Paul Sacher Foundation.

Feldman, Morton. Letter to William M. Colleran, 16 December 1975. Morton Feldman Collection, Paul Sacher Foundation.

Feldman, Morton. "Liner Notes." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 3–7 Cambridge, MA: Exact Change, 2000. Originally published in *Kulchur* 2/6 (Summer 1962): 57–60.

Feldman, Morton. "On Stefan Wolpe." In *Morton Feldman in Middelburg: Words on Music, Lectures and Conversations*, vol. 2, ed. Raoul Mörchen, 546–90. Köln: MusikTexte, 2008.

Feldman, Morton. Sketchbook 1, 1950–51. Morton Feldman Collection, Paul Sacher Foundation.

Feldman, Morton. Sketchbook 2, 1950–51. Morton Feldman Collection, Paul Sacher Foundation.

Feldman, Morton. "Some Elementary Questions." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 63–66. Cambridge, MA: Exact Change, 2000. Originally published in *Art News* 66/2 (April 1967): 54, 74.

Feldman, Morton. "Sound, Noise, Varèse, Boulez." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 1–2. Cambridge, MA: Exact Change, 2000. Originally published in *It is. A Magazine for Abstract Art* 2 (Autumn 1958): 46.

Feldman, Morton. "The Anxiety of Art." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 21–32. Cambridge, MA: Exact Change, 2000. Originally published as "Konstens ängslan" in *Nutida Musik* 12/3 (1968–69): 36–41.

Feldman, Morton. "The Avant Garde: Progress or Stalemate?" *New York Times*, 5 March 1967, Section D, 27.

Feldman, Morton. "The Future of Local Music." In *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B. H. Friedman, 157–95. Cambridge, MA: Exact Change, 2000.

Feldman, Morton. "To Have Known Stefan Wolpe Well." Typescript. Morton Feldman Collection, Paul Sacher Foundation.

Feldman, Morton. Untitled sketch on graph paper. David Tudor Papers, Getty Research Institute, Box 9.

Feldman, Morton. Slee Lecture. SUNY–Buffalo, 20 November 1972. Transcript available online at http://ublib.buffalo.edu/libraries/units/music/spcoll/feldman/mfslee315.html.

Griffiths, Paul. "Morton Feldman." *Musical Times* 113/1554 (August 1972): 758–59.

Griffiths, Paul. *Modern Music and After*. 3rd ed. Oxford: Oxford University Press, 2011.

Holzaepfel, John. "Painting by Numbers: The *Intersections* of Morton Feldman and David Tudor." In *The New York Schools of Music and Visual Arts*, ed. Steven Johnson, 159–72. New York: Routledge, 2002.

Johnson, Steven. "Jasper Johns and Morton Feldman: What Patterns?" In *The New York Schools of Music and Visual Art*, ed. Steven Johnson, 217–47. New York: Routledge, 2002.

Johnson, Steven. "*Rothko Chapel* and Rothko's Chapel." *Perspectives of New Music* 32/2 (Summer 1994): 6–53.

Kissane Seán, ed. *Vertical Thoughts: Morton Feldman and the Visual Arts*. Exhibition catalog. Dublin: Irish Museum of Modern Art, 2010.

Kopp, Alexander. "Gegenstand und Oberfläche: Morton Feldmans Gedanken über die Beziehung von Kunst und Musik." In *Musik und Bildende Kunst*, ed. Rudolf-Dieter Kraemer, 111–18. Essen: Verlag Die Blaue Eule, 1990.

MacDonald, Malcolm. *Varèse: Astronomer in Sound*. London: Kahn and Averill, 2003.

Massi, R. Wood. "Captain Cook's First Voyage: An Interview with Morton Feldman." *Cum Notis Variorum*, 131 (April 1989): 7–12.

Mattis, Olivia. "From Bebop to Poo-wip: Jazz Influences in Varèse's *Poème électronique*." In *Edgard Varèse: Composer, Sound Sculptor, Visionary*, ed. Felix Meyer and Heidy Zimmermann, 309–17. Woodbridge, Suffolk: The Boydell Press for the Paul Sacher Foundation, 2006.

Mattis, Olivia. "The Physical and the Abstract: Varèse and the New York School." In *The New York Schools of Music and Visual Art*, ed. Steven Johnson, 57–74. New York: Routledge, 2002.

Namuth Hans and Barbara Rose, eds. *Pollock Painting*. New York: Agrinde, 1980.

Nattiez, Jean-Jacques, et al., eds. *The Boulez–Cage Correspondence*. Trans. Robert Samuels. Cambridge: Cambridge University Press, 1993.

O'Doherty, Brian. "Feldman Throws a Switch Between Sight and Sound." *New York Times*, 2 February 1964, Section 2, 11.

O'Doherty, Brian. Interview with the author. October 27, 2004.

Ouellette, Fernand. *Edgard Varèse*. Trans. Derek Coltman. New York: The Orion Press, 1966.

Patterson, David W. "Words and Writings." In *The Cambridge Companion to John Cage*, ed. David Nicholls, 85–99. Cambridge: Cambridge University Press, 2002.

Patterson, David W. "Appraising the Catchwords, c. 1942–1959: John Cage's Asian-Derived Rhetoric and the Historical Reference of Black Mountain College." Ph.D. dissertation, Columbia University, 1996.

Pavia, Philip. *Club Without Walls: Selections from the Journals of Philip Pavia*. ed. Natalie Edgar. New York: Midmarch Arts Press, 2007.

Pritchett, James. *The Music of John Cage*. Cambridge: Cambridge University Press, 1993.

Sandler, Irving. "The Club." In *Abstract Expressionism: A Critical Record*, ed. David Shapiro and Cecile Shapiro, 48–58. Cambridge: Cambridge University Press, 1990.

Sandler, Irving. *The Triumph of American Painting: A History of Abstract Expressionism*. New York: Harper and Row, 1970.

Saxer, Marion. *Between Categories: Studien zum Komponieren Morton Feldmans von 1951 bis 1977*. Saarbrücken: PFAU-Verlag, 1998.

Taubman, Howard. "Hisses, Applause for Webern Opus." *New York Times*, 27 January 1950, 26.

Varèse, Edgard. "Die heutige musikalische Wisenshaft" [*sic*]. Typescript, ca. 1950. Edgard Varèse Collection, Paul Sacher Foundation.

Varèse, Edgard. "The Liberation of Sound." In *Contemporary Composers on Contemporary Music*, ed. Elliott Schwartz and Barney Childs, 196–208. New York: Holt, Rinehart and Winston, 1967.

Varèse, Edgard. "Music and the Times." Typescript, ca. 1936. Edgard Varèse Collection, Paul Sacher Foundation.

Varèse, Edgard. "Varèse Envisions 'Space' Symphonies." *New York Times*, 6 December 1936.

Vigil, Ryan. "Compositional Parameters: *Projection 4* and an Analytical Methodology for Morton Feldman's Graph Works." *Perspectives of New Music* 47/1 (Winter 2009): 233–67.

Welsh, John P. "*Projection 1* (1950)." In *The Music of Morton Feldman*, ed. Thomas DeLio, 21–35. Westport, CT: Greenwood Press, 1996.

Williams, Jan. "An Interview with Morton Feldman." *Percussive Notes* 21/6 (September 1983): 4–14. Reprinted in *Morton Feldman Says: Selected Interviews and Lectures 1964–1987*, ed. Chris Villars, 150–59. London: Hyphen Press, 2006.

Wolff, Christian. "Experimental Music around 1950 and Some Consequences and Causes (Social-Political and Musical)." *American Music* 27/4 (Winter 2009): 424–40.

Wolff, Christian. "Taking Chances." *Music and Musicians* 17/9 (May 1969): 38–45.

Wolpe, Hilda Morley. "The Eighth Street Club, from *A Thousand Birds*." In *On the Music of Stefan Wolpe*, ed. Austin Clarkson, 103–10. Hillsdale, NY: Pendragon Press, 2003.

Wolpe, Stefan. "On Proportions." Trans. Matthew Greenbaum. *Perspectives of New Music* 34/2 (Summer 1996): 132–84.

Wolpe, Stefan. "Thinking Twice." In *Contemporary Composers on Contemporary Music*, ed. Elliott Schwartz and Barney Childs, 274–307. New York: Holt, Rinehart and Winston, 1967.

Zimmermann, Heidy. "Recycling, Collage, Work in Progress: Varèse's Thought in Speech and Writing." In *Edgard Varèse: Composer, Sound Sculptor, Visionary*, ed. Felix Meyer and Heidy Zimmermann, 264–71. Woodbridge, Suffolk: The Boydell Press for the Paul Sacher Foundation, 2006.

Zimmerman, Walter. "Conversation Between Morton Feldman and Walter Zimmermann, November 1975." In *Morton Feldman Says: Selected Interviews and Lectures, 1964–1987*, ed. Chris Villars, 51–60. London: Hyphen Press, 2006. First published in *Desert Plants: Conversations with 23 American Musicians*, ed. Walter Zimmermann, 1–20. Vancouver: Aesthetic Research Centre Publications, 1976.