Journal of the Society for American Music (2017), Volume 11, Number 1, pp. 1–24.
 doi:10.1017/S175219631600050X

"To Behold with Wonder": Theory, Theater, and the Collaboration of James Tenney and Carolee Schneemann

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Abstract

During their partnership between 1955 and 1968, composer James Tenney (1934–2006) and artist Carolee Schneemann (b. 1939) engaged in what initially appear to be opposing modes of practice. Tenney developed theories concerning the perception of musical form and composed rationalized works based on carefully calculated algorithms. Schneemann, by contrast, was driven by spontaneity and sensuality, and her provocative artworks vehemently address sexual, gender, and political issues. This duality was especially evident in the mid-1960s, when Tenney was conducting psychoacoustic research at Yale University and Schneemann was producing her first theater events in downtown New York. Although his compositional productivity declined during this period, he participated in several of Schneemann's projects, scripted a few theater pieces of his own, and wrote extensive notes on artistic form as a perceptual model of physiological processes. Drawing from unpublished archival documents and personal interviews, this article provides an overview of Tenney's relationship with Schneemann and demonstrates how his simultaneous involvement in theoretical research and theatrical performance transformed his creative work. A close examination of Tenney's scores, journals, and correspondence reveals that he was deliberately exploring the distinctions between abstraction and collage and seeking to reconcile the apparent dualism of theory and theater.

In the fall of 1964, American composer and music theorist James Tenney spent most weekdays in New Haven, Connecticut, where he worked as a research associate at Yale University. He had recently received a two-year grant from the National Science Foundation to analyze the psychoacoustic properties of violin tones, a project extending from his previous analytic work with digital computers at Bell Laboratories, where he had composed several pieces of electronic music based on carefully calculated algorithms. In many ways, the nature of Tenney's research was conventional—he wrote scholarly papers, spoke at conferences, and was highly respected for his valuable contributions to the intellectual life of the country's academic elite—but there was a curious side to his work during this period. On the evenings of 16–18 November, he traveled to Greenwich Village, where many people congregated in the sanctuary of Judson Memorial Church. There he stripped to

This article was derived from two presentations on the relationship of James Tenney and Carolee Schneemann. One presentation was for a musicology colloquium at the University of California at Santa Cruz in 2014, the other at a concert of Tenney's music at the Abrons Art Center in New York, in 2015 in conjunction with an exhibit of Schneemann's art at the Artist's Institute at Hunter College. I am deeply indebted to Carolee Schneemann, who patiently and passionately responded to countless questions about her life with Tenney while perpetually raising stimulating issues about their creative process. She also generously granted me unrestricted access to her diaries from the 1960s, which not only contain vital information necessary to construct a reliable chronology, but also provide unique insight into the challenges and rewards of two artists exploring life through their work and each other. I would also like to extend my gratitude to the anonymous reviewer who offered thoughtful and valuable comments on an earlier draft of this article.

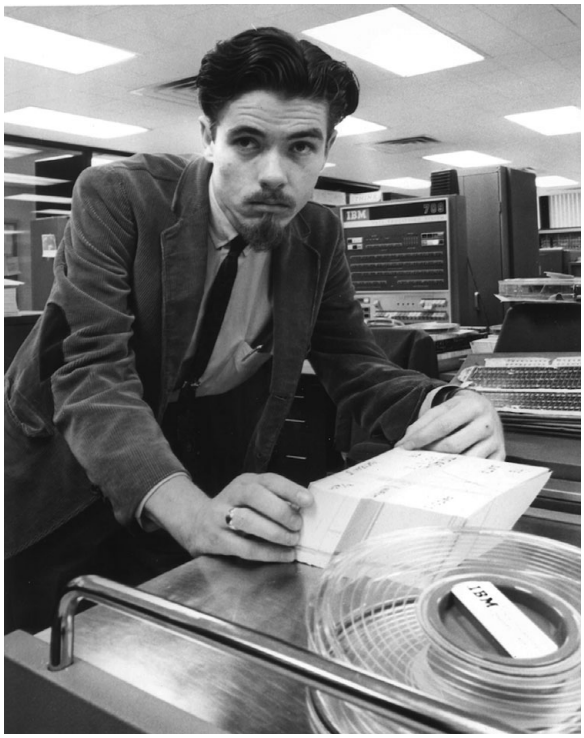

Figure 1a. James Tenney at Yale University, New Haven (1964). Office of Public Affairs, Yale University, Photographs of Individuals (RU 686). Manuscripts and Archives, Yale University Library, Box 74, Folder 3454. Photo credit: Yale University News Bureau. Used by permission.

skimpy undergarments and, following precisely organized choreography, he rolled around on the church floor, writhing among other half–nude women and men covered in paint, raw poultry, fish, and sausage in a tempestuous orgiastic ritual. Then, over several weekends during that same period, he would retreat upstate to a house in the woods, where he was repeatedly filmed in graphic displays of sexual intercourse before returning to work in New Haven on Monday morning, occasionally even donning coat and tie.

Tenney's involvement in such seemingly incongruous activities may appear at first glance to be the countercultural version of *The Strange Case of Dr. Jekyll and Mr. Hyde*—the straight-laced university researcher by day who inexplicably transforms into a deranged and libidinous bohemian by night (Figures 1a and 1b). But Tenney's double life was not so peculiar. First, the avant-garde theater event *Meat Joy* (1964) and the erotic film *Fuses* (1964–67) were created by artist Carolee Schneemann, to whom he was married, and Tenney was unfailingly supportive of his partner's work, no matter how unusual the task. Within the downtown arts community of New York in the 1960s, it was also common to collaborate with others regardless of the discipline. In addition to his work as a researcher, for example, Tenney was active as a composer, conductor, pianist, and performer in productions of the Tone Roads Ensemble, the Judson Dance Theater, Charlotte Moorman's Annual New York Avant-Garde Festival, as well as a host of other events produced by members of the experimental and interdisciplinary Fluxus movement.

https://doi.org/10.1017/S175219631600050X Published online by Cambridge University Press

Figure 1b. James Tenney in a production of Carolee Schneemann's *Meat Joy* at Judson Memorial Church, New York (1964). Photo credit: Al Giese. Used with the courtesy of Carolee Schneemann.

It is not surprising, therefore, that Tenney simultaneously engaged in theoretical research and theatrical performance. What is surprising is that the extant literature on Tenney focuses almost exclusively on the theory component as a *fait accompli*; no one has addressed how his involvement in these radically diverse activities affected his life and work, an inquiry that should begin with his profound connection to Carolee Schneemann.

Between 1955 and 1968, the years of their legal union, Tenney and Schneemann maintained a vital presence in each other's personal and artistic lives. "We were building an interconnective way to work," Schneemann explains, "with the implications of philosophy, space, time, technologies, and the poetry of language and image."[1] Their mutual support was also indicative of a progressive attitude toward gender equality in an era of patriarchal dominance in modern art. The exclusion of female artists was pervasive among the machismo generation of abstract expressionism in the 1950s, which Schneemann sardonically referred to as the "Art Stud Club."[2] She regularly endured condescension, and her work was frequently dismissed by male colleagues, but Tenney proved to be an exceptional partner. "The crucial and wonderful relation of Jim and me—which was new, exemplary for many couples at that time—was our equitable life," she explains. "He *never* expected me to put my work second to his; emotionally he wanted to organize our daily life so that

[1] Alexandra Juhasz, ed., *Women of Vision: Histories in Feminist Film and Video* (Minneapolis: University of Minnesota Press, 2001), 70.

[2] Schneemann, *More than Meat Joy*, ed. Bruce R. McPherson (Kingston, NY: McPherson, 1997), 52.

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the work of each of us would benefit."[3] Having forged a determined artistic vision and producing highly provocative works in the 1960s, Schneemann praised Tenney for possessing the confidence and security necessary to avoid feeling threatened by her own ambitions. "I always believed his ego was strong and steady especially since he chose me—a companion whose creative energies took as much weight and space and direction to the world as his own," Schneemann remarks, "other people thought there was something 'soft' about him for loving me."[4] Indeed, Tenney did not merely support Schneemann and her work; in many instances she took the lead, establishing a powerful artistic voice that prompted Tenney to consider new perspectives at a time when he was struggling with his own creativity.

They shared what she describes as an "amazing creative affinity," but the aesthetic issues they explored together and the ways Schneemann affected Tenney's development as a composer and theorist remain overlooked; the only occasions when these formidable personalities appear together in print have been brief autobiographical accounts or sensationalized anecdotes.[5] A close examination of Tenney's notes, scores, and correspondence from the mid 1960s reveals that he was deliberately exploring intersections between notions of theory and theater, especially with regard to the interrelationship between time and space, a phenomenological investigation that he formulated during his partnership with Schneemann and which shaped his work during a pivotal phase in his creative life.

Space as Time, Time as Space

In the late summer of 1954, twenty-year-old Tenney moved from Denver to New York to study piano with Eduard Steuermann at the Juilliard School. Schneemann,

[3] Schneemann, email correspondence with the author, 27 July 2011. In addition to providing emotional support, Tenney and Schneemann also offered critical responses to each other's art. "I had no talent for visual art directly," Tenney admits, "but I think Carolee agreed that I was a good critic of her work. I could make suggestions and talk about it in ways that I could never have done myself, but somehow I could step out of it and see it, and help her see it in ways that seemed useful. So I feel like our relationship was mutually supportive in a way that was not only just moral support, but could actually take a substantive import." See Eric Smigel and Veronika Krausas, "James Tenney Remembers: Excerpts from the Last Interviews," *Tempo* 61, no. 241 (July 2007): 26.

[4] This passage was drawn from an unpublished essay included in notes to accompany a performance at the Anthology Film Archives in December 1974. Carolee Schneemann Papers, 1959–1994, box 35, folder 6, Special Collections, Getty Research Institute, Los Angeles, CA.

[5] A notable exception is Douglas Kahn, who has explored the connection between Tenney's scientific research and the culture of avant-garde art in the 1960s, especially as it relates to Fluxus events, but he does not focus on Tenney's relationship with Schneemann. In an interview from 1999, Kahn asks Tenney if his participation in such seemingly incongruous activities was disorienting: "It seems from a distance like it might have been schizoid to be involved, by day, in a highly technical world of Bell Labs in New Jersey, of programming and acoustics, submitting proposals to the National Science Foundation, etc. and, by night, in the experimental arts scene in downtown New York, with its sensuousness, irreverence. Such a stretch might be more common today, but it would seem to have been at the time so uncommon as to be disorienting." Tenney acknowledged that it was not common, but not particularly unusual: "It didn't seem odd at all to me," Tenney responds. "It might not have been common but I didn't feel any schism. It is just having both the right side and the left side [of the brain] working simultaneously." Douglas Kahn, "Interview with James Tenney," *Leonardo Electronic Almanac* 8, no. 11 (November 2000): http://www.leonardo.info/LEA/Tenney2001/tenneyinterview.html.

who had been an art student at Bard College, spent her senior year taking courses at Columbia University, then just a few blocks from Juilliard.[6] Although they had exchanged glances a few times in a local cafe, they did not meet until the spring of 1955, when they both attended a concert at the Town Hall Green Room.[7] Schneemann recalls being attracted to the "intense, lanky student" whom she had seen a number of times uptown, and they finally had an opportunity to speak with each other during the intermission: "The first thing I said to him," Schneemann recalls, "was, 'I'm a painter and I treat space as if it's time.' And he responded, 'I'm a musician and I treat time as if it were space.'" Then they pooled their funds to share a single cup of coffee, and as Schneemann puts it, "off we went for thirteen years."[8]

Although one might dismiss this initial exchange as little more than witty and flirtatious repartee, it reveals a major theme in their aesthetic orientation: the correlation of time and space. At that juncture, Schneemann's concept of space as time was largely informed by the writings of biologist D'Arcy Thompson and art historian Henri Focillon, both of whom described form as the result of organic processes. In his classic study *On Growth and Form* (1917), Thompson analyzes the morphogenetic development of amoebas, nautilus shells, insects, and vertebrates as mechanical processes governed by the dynamic forces of physical laws, which Schneemann identified with her personal experience of nature.[9] "Thompson's writing enforced my intuition to really build sight on natural forms and conditions," Schneemann explains. "From childhood, I felt myself a part of nature; saw the world as animate, expressive, alive and sometimes responsive to my own desires. . . . My sense of my own physical life and of making things within the life were always united."[10] Similarly, in *Life of Forms in Art* (1934), Focillon rejects the traditional notion of form as a fixed structure or object, and he adopts biological models for his analysis of stylistic development. Insisting that artistic forms "mingle with life, whence they come," he regards space not as a static zone, but as a bustling environment, an open field of perpetual activity. "Space yields freely to the expansion of volumes which it does not already contain," Focillon writes, "these move out into space, and there spread forth even as do the forms of life."[11] Both Thompson and Focillon interpret spatial forms as organic matter subject to developmental processes that are measurable by temporal units, which led Schneemann to remark that she was a painter who treated space as time.

Tenney's complementary response to Schneemann—"I treat time as if it's space"—was also clever but not glib. Before enrolling at Juilliard, Tenney had ambitions to be an architect, and he attended the University of Denver on an

[6] In 1969 the Juilliard School moved from Claremont Avenue on the Upper West Side, where the Manhattan School of Music currently exists, to its present location at Lincoln Center.

[7] On 17 May 1955, pianist William Masselos performed the First Piano Sonata of Charles Ives at the Town Hall Green Room as part of Rosalyn Tureck's contemporary music series, Composers of Today.

[8] Carolee Schneemann, *Imaging Her Erotics* (Cambridge, MA: MIT Press, 2003), 113.

[9] D'Arcy Thompson, *On Growth and Form* (Cambridge: The University Press, 1917; repr., Mineola, NY: Dover, 1992).

[10] Schneemann, *More Than Meat Joy*, 12.

[11] Henri Focillon, *The Life of Forms in Art* (1934), trans. Charles Beecher Hogan and George Kubler (New Haven, CT: Yale University Press, 1942), 27.

engineering scholarship. Since his high school years, he had been fascinated by the links between sound and space, even citing Goethe's famous comment about architecture being frozen music when trying to account for his dual pursuits.[12] As a teenager, Tenney had also become familiar with the published lectures of Edgard Varèse, whom he would befriend shortly after arriving in New York. He was especially attracted to Varèse's spatial approach to composition as the physical shaping of sound, a concept that resonates with the formal theories proposed by Thompson and Focillon. "Conceiving musical form as a resultant—the result of a process," Varèse writes, "I was struck by what seemed to me an analogy between the formation of my compositions and the phenomenon of crystallization."[13] When Tenney and Schneemann met, in other words, they recognized in each other corresponding approaches to artistic form in their respective media: the interaction of time and space in the perception of organic processes, an aesthetic principle that became central to their subsequent collaborations.

By 1955 Tenney had become disillusioned with the traditional studies in the piano studio at Juilliard, where he had no recourse to the performance or composition of new music, and the young couple moved into tenement housing together on the Upper East Side. While Schneemann commuted to Bard College, Tenney worked as a typist with an accounting firm, which earned him enough to sustain himself and take composition lessons with Chou Wen-Chung, Varèse's chief student. In the summer of 1956, Chou made arrangements for Tenney to attend the Bennington Composers' Conference in Vermont, where he met the composer and teacher Lionel Nowak. Nowak shared Tenney's affinity for progressive musical ideas that had been lacking at Juilliard and suggested that the degree program at Bennington might suit him. In the fall of 1956, Tenney and Schneemann moved to South Shaftsbury, and he enrolled at Bennington when it was still a women's college. In order for both Tenney and Schneemann to be eligible for financial awards at Bennington, it was necessary for them to be married if they intended to live together, so they had what Schneemann describes as an "emergency wedding."[14] After being denied an assistantship, Schneemann took odd jobs and continued to draw and paint, making dozens of portraits of Tenney as well as collaged cover pages for several of Tenney's scores (Figures 2 and 3). According to Schneemann, her exploration

[12] See Brakhage, "James Tenney," in *Perspectives of New Music* 25, nos. 1–2 (Summer 1987): 470.

[13] This passage comes from a lecture, "Rhythm, Form, and Content," that Varèse delivered at Princeton University in 1959. See Edgard Varèse and Chou Wen-Chung, "The Liberation of Sound," *Perspectives of New Music* 5, no. 1 (Autumn–Winter 1966): 16. Noting the affinity between Varèse's formal structures and Thompson's theory of biological processes, Tenney would later write to Varèse recommending Thompson's *On Growth and Form*: "I have thought a lot about your ... analogy between music and crystal structure," Tenney writes. "Somewhat along this same line, perhaps, is the relation of music to organic structure, and I would like to recommend a book that I believe will interest you very much." Tenney to Varèse, 11 October 1959, James Tenney Fonds, 1998-038/001 (file 09), York University.

[14] In September 1956, Tenney and Schneemann were married in Philadelphia, where Schneemann's parents resided. Reluctant to enter a legal union, Schneemann insisted that she would keep her own name, maintain a separate bank account, and bear no children. Although Tenney accepted these conditions, it was this difference of family values that would contribute to the erosion of their relationship several years later. Schneemann, interview with the author, Springtown, NY, 16 November 2013.

Figure 2. (Color online) Carolee Schneemann, *Personae: JT and Three Kitch's* (1957). Used with the courtesy of Carolee Schneemann.

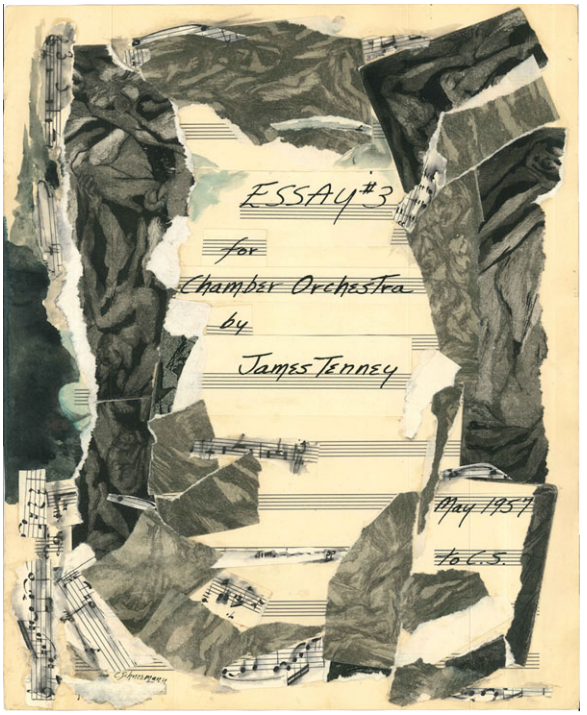

Figure 3. (Color online) Carolee Schneemann, cover page to James Tenney's Essay No. 3 (1957). Musical Scores, James Tenney fonds, ASC07220, 1978-018/002 (02), Clara Thomas Archives and Special Collections, York University Libraries. Used by permission of the James Tenney Estate and with the courtesy of Carolee Schneemann.

https://doi.org/10.1017/S175219631600050X Published online by Cambridge University Press

of visual collage in the late 1950s was informed by the constant sounds of Tenney practicing the piano music of Ives: "I was listening to Ives, chords, fragments, broken phrases over and over again and that was very important for how I was thinking about pictorial space," she recalls. "I wanted to increase fracture, I didn't know quite how that would work, but I knew there was something incremental in collage and in the breaking of form."[15]

Collage and Perceptual Modeling

After graduating from Bennington in 1958, Tenney came across an advertisement that announced a new program in electronic music at the University of Illinois. Enchanted by the idea of electronics as the future of music and inspired by Varèse's recent completion of *Poème électronique*, Tenney enrolled in the Experimental Music Studios and moved to Illinois with Schneemann, who was admitted into the graduate art program.[16] Stimulated by seminars led by Lejaren Hiller, Tenney undertook a scrupulous study of psychoacoustics, information science, and phenomenology, areas of research that would engage the composer for the rest of his life. During his final year in the program, he completed a thesis, *Meta+Hodos*, in which he examines the implications of Gestalt psychology for the perception of musical form.[17] He also composed a tape piece called *Collage No. 1* (1961), a *musique concrète* deconstruction of Elvis Presley's immensely popular recording of "Blue Suede Shoes," the rockabilly song by Carl Perkins. *Collage No. 1*, subtitled *Blue Suede*, is not simply a playful pastiche of Presley's recording, but an examination of how unrecognizable and recognizable fragments coalesce into a coherent sonic image—a simplified Gestalt model of the perceptual process, which he outlines in his thesis as a complex network of objective and subjective elements.[18]

Tenney was well aware of the visual analogue of musical collage through Schneemann, who had been making collages since the previous decade, but her art had taken on a more pronounced physicality shortly after they arrived in Illinois. Emboldened by the incendiary writings of dramatist Antonin Artaud, Schneemann burst out of the confines of the canvas and began to explore the vigorous energies of assemblage.[19] In constructions like *Tenebration* (1961), which celebrates music and her relationship with Tenney, Schneemann transcends the single dimensionality of oil paint and the double dimensionality of cutouts by incorporating a wider variety of found objects (including paper, wood, cloth, and photographs) into the

[15] Schneemann, "Notes on Fuseology," *Border Crossings* 33, no. 4 (December 2014): 40.

[16] According to Schneemann, it was necessary for them to draft fake legal documents indicating their imminent divorce in order for them both to receive scholarship awards. Schneemann, interview with the author, Springtown, NY, 3 June 2007.

[17] Tenney, *Meta+Hodos: A Phenomenology of 20th-Century Musical Materials and an Approach to the Study of Form* (Lebanon, NH: Frog Peak Music, 1986 [2nd ed., 1988]).

[18] For further discussion of Tenney's *Collage No. 1 (Blue Suede)* as it relates to his thesis *Meta+Hodos*, see Larry Polansky, "Early Music of James Tenney," *Soundings* 13 (1984): 144–46. Also see Eric Smigel, "Metaphors on Vision: James Tenney and Stan Brakhage, 1951–1964," *American Music* (Fall 2012): 76–77.

[19] Shortly after arriving in Illinois in 1959, Schneemann was introduced to Mary Caroline Richards's translation of Artaud's *Le théâtre et son double* by actress Liz Hiller, who was Lejaren Hiller's partner.

picture frame. Seizing the visceral qualities of physical materials is fundamental to the practices of assemblage and *musique concrète*, and Tenney certainly recognized the correlation between *Collage No. 1* and Schneemann's recent work. In fact, in a diary entry from April 1961, Schneemann indicates that Tenney's tape piece, which she describes as a "fierce love song, entangled shapes in close pulses," was dedicated to her and derived from her own assemblages: "The new piece *Collage I* for me," Schneemann intimates, "grown out of my work and ideas on materials."[20] Tenney's *Blue Suede*, therefore, was not only a tribute to Elvis Presley and the physical impulses of rock 'n' roll, recordings of which Tenney and Schneemann regularly danced to, but also a response to the vitality and sensuality of Schneemann's recent constructions.[21]

After Tenney and Schneemann completed Master's degrees from Illinois in the spring of 1961, Tenney was hired at Bell Laboratories in Murray Hill, New Jersey, to experiment with digital synthesis. At the labs, he gained fluency in a sound-generating computer program designed by Max Mathews, which enabled the operator to specify formal properties of a composition according to various statistical conditions. Tenney's first completed work at Bell Labs was *Noise Study* (1961), which was an exercise in traversing the sound–noise continuum based on a lived experience. His idea for the piece came while driving several times a week through the heavy traffic in the Holland Tunnel between New Jersey to Manhattan. "One day I found myself *listening* to these sounds instead of trying to ignore them as usual," Tenney explains, and "I began to conceive a musical composition that not only used sound elements similar to these, but manifested similarly gradual changes in sonority."[22] To achieve an effect resembling his listening experience in the Holland Tunnel, the first instrument he designed at Bell Labs was a complex noise generator with the capacity to select random frequencies, amplitudes, and bandwidths within a prescribed set of ranges for each parameter. The piece begins softly with long durations of wide noise-bands, approximating the sound of white noise. As the average temporal density increases, the noise bandwidths decrease, until the sounds are heard not as white noise, but as tones with amplitude fluctuations. The ensuing perceptual ambiguity draws attention to the rich fluidity of sound, rendering the categories of "tone" and "noise" irrelevant. More broadly, *Noise Study* illuminates Tenney's distrust of dualistic language, the use of which tends to yield imprecise and incomplete descriptions of the complex listening experience.[23]

In his theoretical work from this period, and indeed for most of his life, Tenney focused on issues of transformation, especially the means by which one musical profile or perceptual unit morphs into another, which reflects the biological processes

[20] Schneemann diary, 10 April 1961, Carolee Schneemann Papers, circa 1954–2012 (MS 1892, currently unprocessed), Stanford University, Palo Alto, CA.

[21] Schneemann even owned a pair of Capezio shoes made of blue suede, which she would wear as the young couple danced together. Schneemann, phone conversation with the author, 28 April 2016.

[22] James Tenney, "Computer Music Experiences, 1961–1964," in *From Scratch: Writings in Music Theory* (Urbana: University of Illinois Press, 2015), 99.

[23] For more thorough analytic discussions of *Noise Study*, see Polansky, "The Early Works of James Tenney," *Soundings* 13 (1984): 151–57. Also see Brian Belet, "Theoretical and Formal Continuity in James Tenney's Music," *Contemporary Music Review* 27, no. 1 (February 2008): 27–30.

as D'Arcy Thompson described them. "Already in the simplest organism there is an alteration," Tenney writes, "a *processing* of this information. . . . The perceptual processes in the organism constitute a 'model' of the outside world."[24] In other words, perception is the process by which an organism reconstructs the entropic properties of its environment. Projects like *Collage No. 1 (Blue Suede)* and *Noise Study*, which were not simply abstract experiments conducted in clinical isolation, helped Tenney identify the source of one of his greatest frustrations with the rigid phrasing of music generated by a computer. "I finally figured it out," he exclaimed to Schneemann one evening when he came home from the lab, "they have never been able to program breath."[25]

Kinetic Theater and Concretized Sensations

Tenney found a living and breathing counterpart to his theoretical research at Bell Labs by spending weekends in the bustling avant-garde scene of lower Manhattan, where he and Schneemann participated in numerous performance events. Tenney re-established contact with violinist and composer Malcolm Goldstein, whom he had met at the Bennington Composers Conference, and Goldstein introduced Tenney to pianist and composer Philip Corner. Corner and Goldstein had been working with a dance collective that experimented with pedestrian movement, improvisation, and various modes of interdisciplinary collaboration. When the troupe began practicing and performing regularly at the Judson Memorial Church, they became known as the Judson Dance Theater, and Schneemann was a regular participant. Although she was initially "too self-conscious and unpracticed to perform publically," she enthusiastically took to the workshop experiments: "I felt no restraint as a painter who had in effect enlarged her canvas," Schneemann states. "I was intrigued by the particularities of the performers of the group; I thought of them as a sort of physical 'palette.'"[26] By the end of 1962, Schneemann had extended her painterly sensibilities from canvas to collage to assemblage and was now creating situations or environments that incorporated moving bodies, sounds, and an assortment of other materials, creating a ritualistic art form that she would describe as "kinetic theater."

In the early summer of 1963, Tenney and Schneemann discussed their evolving artistic concerns and jotted down key ideas. Schneemann indicates clearly and directly that she was setting out "to concretize sensations." Tenney's stated goal is less succinct, perhaps reflecting less certainty, but he arrives at a similar precept: "to extend my experience; to understand, to know, to comprehend; to hear in a process manifested in each instance with a particular range of materials, focused upon a particular process-image (tunnel, etc.) and/or motivated by a sense-involvement with some particular materials (E. Presley, etc.)."[27] Here Tenney explicitly refers to

[24] Tenney, notes on "Biology," 27 November 1963, James Tenney Fonds, York University 1998-038/007 (file 5).

[25] Schneemann, interview with the author, Springtown, NY, 3 June 2007.

[26] Schneemann, *More Than Meat Joy*, 32.

[27] Tenney, notes on "Perception-Communication," 9 June 1963, James Tenney Fonds, 1998-038/007 (file 3), York University.

Blue Suede (Elvis Presley) and *Noise Study* (tunnel) to emphasize how his creative work from this period was motivated not only by a curiosity about the perceptual process, but also by his physiological engagement with the outside world—an aesthetic tenet that Tenney soon came to associate with the enterprise of theater.

A couple of months later, both Schneemann and Tenney took important steps toward art forms that incorporate theatrical elements. First, Schneemann created *Eye Body: 36 Transformative Actions* (1963), an environment of the artist in her loft that was documented in photos. "I wanted my actual body to be combined with the work as an integral material," Schneemann explains, "a further dimension of the construction. . . . I am both image-maker and image."[28] *Eye Body* was both an artistic and a political statement—a simultaneous extension of collage principles and an aesthetic response to the exclusionary and sexist providence of men in artistic and academic institutions. "In 1963 to use my body as an extension of my painting-constructions was to challenge and threaten the psychic territorial power lines by which women were admitted to the Art Stud Club," Schneemann writes, "so long as they behaved *enough* like the men, [and] did work clearly in the traditions and pathways hacked out by the men."[29] Tenney, of course, was an obvious exception, who not only acknowledged the value of Schneemann's work, but also was directly influenced by her processes. In the case of *Eye Body*, for example, she had blazed a pathway for Tenney, who, within a few weeks scripted his first theater piece: *Choreogram* (1964), for any number of players, using any instruments or sound sources (Figure 4). According to his instructions, "The score is the dance itself, each player's part [is determined by] the positions and movements of one or more dancers, according to the following conditions: Each player determines—ahead of time, and independently of other players—a specific, one-to-one correlation between 'dancer-variables' and independently variable parameters of the sounds he can produce."[30] With his first foray into composing a theatrical event, Tenney essentially used the bodily action of dancers to trigger algorithmic routines for the musicians—he reintroduced breath into the cognitive modeling process that he felt had been missing at the computer labs.

About six months before his contract at Bell Labs would expire, Tenney submitted a proposal to the National Science Foundation for a grant that would allow him to conduct computer studies of the timbre of violin tones, research that would take place at Yale University. Because the NSF was not accustomed to providing support for musicians, especially those concerned with the unusual type of project that Tenney was proposing, the application was assigned to the Psychobiology Program of the Biological and Medical Sciences Division for further review.[31] A

[28] Schneemann, *More Than Meat Joy*, 52.

[29] Ibid.

[30] The score for Tenney's *Choreogram* (1964) was published by Peter Garland and John Bischoff in *Soundings* 1 (January 1972): 34–37.

[31] Tenney wrote a research proposal called "An Experimental Investigation of Timbre" (4 June 1963), which was sent to J. R. Pierce of Bell Labs and Randal M. Robertson of the National Science Foundation. On 19 July 1963, Robertson indicated that he would forward Tenney's document to Henry Odbert, Program Director for Psychobiology at the NSF. See "Bell Labs Correspondence," James Tenney Fonds, 1998-038/001 (file 03), York University.

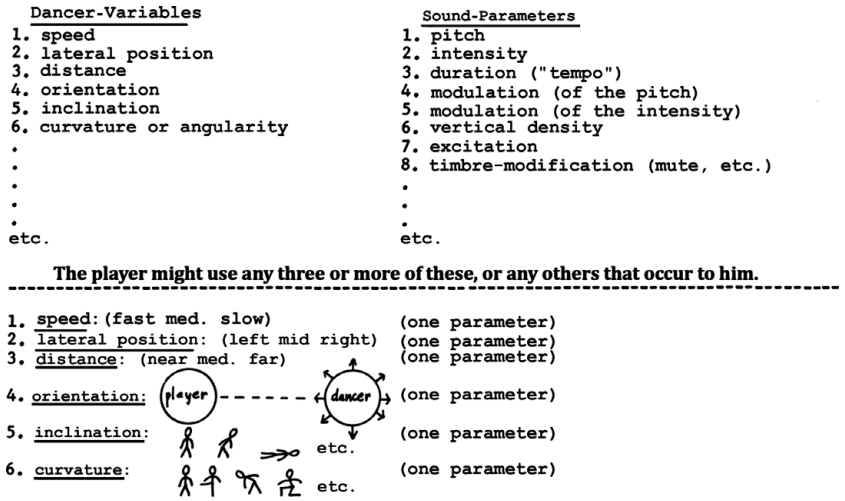

Figure 4. James Tenney, excerpt from score to *Choreogram* (1964). Used by permission of the James Tenney Estate.

two-year grant was approved, and Tenney began his appointment at Yale in March 1964. Similar to their living arrangements during the years at Bell Labs, Tenney rented an apartment in New Haven, while Schneemann kept a loft in New York. Now, though, they also moved into an old farmhouse in Springtown, outside New Paltz.

In many ways, Tenney's creative work during his years at Yale (1964–1966) was atypical for him and a bit perplexing in the context of his entire oeuvre. Most conspicuously, there was a sharp decline in his compositional productivity. Even though he was working with a computer on a regular basis to analyze and synthesize tones, he did not compose any electronic music. He also remained active as a conductor and pianist, but he literally did not compose a single musical note during this period. In fact, he was completely silent for over a year before scripting several more theater events, which would be his final works in that genre. His journal entries at the time reveal that he was going through a sort of aesthetic crisis, questioning how the perceptual distinction between art and life might affect his creative trajectory. An outpouring of such working reflections appears in the spring and early summer of 1964, when Tenney was home alone in his New Haven residence while Schneemann was in Europe producing what would become one of her most ambitious and provocative kinetic theater events.

That event, *Meat Joy* (1964), is Schneemann's attempt to capture, or "concretize," sensations that arose from hallucinatory dream images. "[It] has the character of an erotic rite," she explains, "excessive, indulgent, a celebration of flesh as material: raw fish, chickens, sausages, wet paint, transparent plastic, rope brushes, paper scrap. Its propulsion is toward the ecstatic—shifting and turning between tenderness, wildness, precision, abandon: qualities which could at any moment be sensual, comic,

https://doi.org/10.1017/S175219631600050X Published online by Cambridge University Press

Figure 5. Carolee Schneemann, *Meat Joy* (1964). Photo credit: Tony Ray-Jones. Used with the courtesy of Carolee Schneemann.

joyous, repellent."[32] Tapes of Parisian street sounds, along with Schneemann's voice heard reading production notes and French language lessons, were superimposed onto a tape-recorded collage, co-edited by Tenney and Schneemann, of popular songs with lyrics that focus on love. It was first performed on 29 May 1964 at the Festival of Free Expression in Paris, then again at Dennison Hall in London the following week, before being staged at Judson Church in New York that November (Figure 5). Tenney did not travel to Europe with Schneemann, but he served as the central male figure in the New York production of the work. "I was miserable without him when we were performing *Meat Joy* in Paris," Schneemann recalls, "but I felt that the work was another aspect of tribute to our life together. That was how I thought of it. He insisted on being in *Meat Joy* when we did it in New York. I didn't want him in it because I thought I needed some distance to shape these participants, but it ended up being perfect."[33]

In May 1964, while Schneemann was producing *Meat Joy* in Paris, Tenney created his second theatrical event at the request of artist George Brecht, who programed the work on the Fluxus Symphony Orchestra Concert the following month at Carnegie Hall. Tenney conceived the score for *Chamber Music*—which consists of a series of small cards with such conceptual instructions as "Prelude: in preparation," "First Interlude: intentionally," etc.—while attending a performance in New Haven: "I was waiting for a concert to begin," Tenney recalls, "and noticed how much was going on that we generally filter out. We don't consider it to be what we are there to

[32] Schneemann, *Imaging Her Erotics*, 61.
[33] Schneemann, "Notes on Fuseology," 44.

https://doi.org/10.1017/S175219631600050X Published online by Cambridge University Press

observe, yet it often is very rich and potentially interesting."[34] Like John Cage's *4'33"*, Tenney's *Chamber Music* directs the audience's attention to a listening experience typically regarded as outside the scope of an artistic activity; it is, in other words, a way of reframing attention, which is a form of theater, just like any other concert. Unlike Cage, though, Tenney did not think of his work as music—in fact, he was uninspired to compose at all, and was unsure how to proceed, as he admits in a letter to Schneemann in June 1964:

> I'm well into the research project here, but I haven't done anything *else* (like music) except for *Chamber Music*, which is theater, not music. I have very little inclination to do it, in fact, which is the most disturbing part of it, though it may simply mean that what is to be done from now on is not what I have called music before. Sometimes my science seems enough (though [it's] only a small part of *life*). Other times, I assume that I will return to the music-making in the sense I have known it, but just assume and wait, because I'm not moved to do it. Maybe I will never return to it. 'Life' has come to be so much more absorbing than any 'art' process I was ever involved in, that it may simply suffice (for me—[but] I would still hope that *somebody* did it).[35]

Apparently, life proved sufficiently absorbing for Tenney that he would not complete a single work, neither music nor theater, for more than a year.

Fusing Biological Function and Artistic Impulse

As Schneemann continued her European travels, Tenney continued writing notes about the separation of art and life, a topic that dominated Fluxus discourse in the 1960s. He concludes that the only distinction between attending a musical performance and listening to incidental sounds of the environment concerns the sociological aspect of gathering together for a communal experience. He thereby arrived at a definition of art: "acute perception (focus) and awareness, shared. Thus it is an act of love."[36] Tenney's surge of reflections from this period, which often conveys a forlorn quality, could be explained in part by the absence of his beloved partner—he definitely missed Schneemann, and there is evidence that he had fallen into a moderate depression. But he wasn't prone to self-pity, and his curiosity about the nature of art and life was sincere. Besides, he continued to explore theatrical projects after they reunited, starting with what Schneemann describes as their "most intimate and complex collaboration."[37]

After Schneemann returned to upstate New York in the summer of 1964, she began to film their lovemaking in the bedroom of the Springtown home, and for good measure, Tenney set up a tape recorder under the bed to capture the sound of the proceedings. They documented their sexual activities over the course of

[34] Kahn, "Interview with James Tenney."

[35] Tenney to Schneemann, 23 June 1964. See Kristine Stiles, ed., *Correspondence Course: An Epistolary History of Carolee Schneemann and Her Circle* (Durham, NC: Duke University Press, 2010), 92.

[36] Tenney, notes on "Perception-Communication," Summer 1964, James Tenney Fonds, 1998-038/007 (file 3), York University.

[37] Schneemann, "James Tenney: Collaborations and Participations in the Films, Music, Paintings, Performance of Carolee Schneemann" (ca. 1986). Carolee Schneemann Papers, 1959–1994, Box 43, Folder 2, Research Library, Getty Research Institute, Los Angeles.

Figure 6. (Color online) Carolee Schneemann, film still from *Fuses* (1964–67). Used with the courtesy of Carolee Schneemann.

almost three years, and Schneemann painstakingly edited dozens of hours of raw footage into an eighteen-minute film, *Fuses* (1964–67) (Figure 6). She decided to make an erotic film, she explains, "because no one else had dealt with the image of love-making as a core of spontaneous gesture and movement." "I did the filming even while I was participating in the action. There were no aspects of lovemaking which I would avoid; as a painter I was free to examine the celluloid itself; burning, baking, cutting, painting, dipping my footage in acid, building dense layers of collage." The cinematic result is a rapid and rhythmically vibrant montage of images, colors, and shapes that alternately abstract and reveal their bodily forms as both distinct and inseparable. "Perhaps because *Fuses* was made by a woman, of her own life," Schneemann suggests, "it is both a sensuous and equitable interchange; neither person is 'subject' or 'object.'"[38] Ultimately, Schneemann remarks, "*Fuses* was made as an homage to a relationship of ten years—to a man with whom I lived and worked as an equal."[39]

Schneemann indicates that *Fuses* was partially informed by their shared reading of work by Austrian psychiatrist Wilhelm Reich. One of Freud's most accomplished students, Reich sought to re-examine principles of sexology by directing more attention to the role of the orgasm as a fundamental aspect of the biological and psychological condition. While conducting bioelectrical experiments in the 1930s,

[38] Schneemann, *Imaging Her Erotics*, 45.
[39] Ibid.

https://doi.org/10.1017/S175219631600050X Published online by Cambridge University Press

he observed the function of tension and charge that he identified as the fundamental life force, or what he called "orgone energy." "In its quickly alternating expansions and contractions," Reich writes, "the orgasm shows a function which is composed of tension and relaxation, charge and discharge: *biological pulsation*."[40] Reich regarded this basic sequence of orgasmic discharge as essential to the psychophysiological activities of all living organisms: "the orgasm formula," he asserts, "shows itself to be the life formula as such."[41]

For Tenney and Schneemann, Reich's biologism struck a shocking chord of recognition and offered an effective platform for the convergence of Gestalt psychology, information theory, and the ritual and politics of human sexuality that had shaped their creative lives. "Reich was trying to get to a more viable, holistic physiology," Tenney recalls. "I think [he] was on to something that I'd never seen in any other place about whole-organism integration that relates to the sexual function."[42] Over the course of Schneemann's filming of what would become *Fuses*, Tenney discovered a renewed interest in composition: "There is one music more beautiful than any other," he notes, "the music of loving. Its timbre is that of an integral physical ('meat') joy as intense as any pain. Its rhythm is classical, as is its form; (where else may the form with climax have derived?)."[43]

In June 1965, after a year of philosophical and aesthetic deliberation, Tenney composed a piece that straddles music and theater and actualizes Reich's formula of charge and discharge. The score for *Maximusic* is comprised of text instructions in three parts: the piece begins with a quietly sustained roll on a large cymbal, followed abruptly by loud and fast improvisation on any assortment of percussion instruments, which is then punctuated by the single powerful strike of a tam-tam before returning to the soft roll of the cymbal to conclude.[44] *Maximusic* stands apart from the other text scores Tenney drafted during this period in that he prompts the performer to produce sound rather than engage in a theatrical activity; or, perhaps more accurately, he asks the performer to engage in a theatrical activity that produces sound. In either case, Tenney instructs the percussionist to play "until nearly exhausted from the physical effort," a physiological cue that emphasizes the performer's body as the primary instrument.

Although *Maximusic* marked only a brief return to music composition for Tenney, it initiated a series of several other theatrical works over the course of that summer and early autumn. *Metabolic Music* (July 1965), for example, features a performer affixed with electrodes to enable physiological signals to amplify various sound sources, similar to Alvin Lucier's *Music for Solo Performer* from the same

[40] Wilhelm Reich, "The Discovery of the Orgone: Experimental Investigation of Biological Energy" (1942), reprinted in *Selected Writings: An Introduction to Orgonomy* (New York: Farrar, Straus, and Giroux, 1960), 190.

[41] Ibid., 191.

[42] Kahn, "Interview with James Tenney."

[43] Tenney, notes on "Perception-Communication," 23 January 1965, James Tenney Fonds, 1998-038/007 (file 3), York University.

[44] Tenney, *Maximusic* (Baltimore: Smith, 1997). The score was first published by Peter Garland in *Soundings* 13 (1984).

year.[45] Another of Tenney's theater pieces, *For two (gently)* (August 1965), is a text score that instructs a male and female performer to walk slowly through a performance space as she plays sustained sounds on a violin while he kisses and caresses her. As he explains in the score of what he describes as a "gentle piece," it should not be clear if the woman is enraptured by the sound or the man's affections, thereby emphasizing the ambiguity between music and love.[46] Then a few weeks later, Tenney wrote *Thermocouple #1* (August 1965), a politically charged work that carries the subtitle "Electronic Music for two (with love)." A more elaborate text score that also calls for a man and a woman, *Thermocouple #1* requires the performers to enter the space while an amplified audio oscillator emits a low hum. They are instructed to interact lovingly with each other, the audience, and the electronic equipment, before the oscillator changes the mood sharply.[47] It is switched to a high and shifting frequency and an increasingly higher amplitude, and the man stands on a piano with a live microphone, the placement of which initiates screaming feedback throughout the space. Tenney's intention in portraying such a dramatic shift from sensual interaction to menacing assault is explained through a penciled note that he erased from the unpublished score: "or we are all ionized by Vietnam napalm A-bombs backfiring," an explicit programmatic reference, in which he rarely indulged, to the escalating violence in Southeast Asia. Even though Tenney regarded these unpublished theater works as compositionally inconsequential, his affirmation of the body as an integral component of any artistic activity not only reflected his association with Schneemann, but also informed his emerging theoretical ideas.

Analytic Abstraction and Synthetic Collage

In the midst of writing theatrical works in the summer of 1965, Tenney formulated in his journal a remarkable notion of how the separate tendencies toward theory and theater emerged from what he identifies as "two parallel developments" in arts of the twentieth century.[48] The first, he points out, is guided by principles of abstraction, by which he means works characterized by what has been excluded. As examples, he cites cubism and neo-plasticism in the visual arts and serialism in music as movements that emphasize "relations between things (rather than the things in themselves)," which echoes sentiments that John Cage expressed in *Silence*. He suggests that abstraction is an "analytic" trend, which often leads to "numerical

[45] Douglas Kahn highlights the political connection between Tenney's *Metabolic Music* and Wilhelm Reich's theory of orgone energy. See Kahn, "Let Me Hear My Body Talk, My Body Talk," in *Relive: Media Art Histories* (Cambridge, MA: MIT Press, 2013), 235–56.

[46] *For two (gently)* was dedicated to Charlotte Moorman and Nam June Paik, who performed the work at the Third Annual New York Avant-Garde Festival on 29 August 1965.

[47] The score for *Thermocouple #1* asks the couple to rub glass rods to generate static electricity, which they use to stimulate each other's hair as well as the hair of audience members. Then they remove their shirts and touch their fingers, tongues, and torsos to battery terminals, an activity that is also offered to the audience. Next, the couple disrobes excepting brief undergarments, and they tenderly touch each other before walking among the audience, initiating physical contact with them as well.

[48] Tenney, notes on "Perception-Communication," 11 August 1965, James Tenney Fonds, 1998-038/007 (file 3), York University.

or other symbolic representations, and to theory." The other development that Tenney classifies follows principles of collage and is accordingly more inclusive and eclectic by nature. As examples, he cites assemblage in the visual arts, James Joyce in literature, and for music, he lists Ives, Varèse, Cage, and—most tellingly—his own *Blue Suede*. This strand of art, he indicates, is more synthetic than analytic and leads more toward theater than theory.

Tenney points out that the distinction between abstraction and collage is not merely a question of style, but of perceptual perspective. Evoking the popular media critic Marshall McLuhan, Tenney asserts that technological extensions of the body have facilitated our ability to traverse radical alterations of scale; that is, by microscoping or telescoping perspective, one can drift between abstraction and collage, between analytic and synthetic, and between theory and theater, even within a single work.[49] These abrupt shifts in perspective, for instance, take place in *Collage No. 1*, which does not immediately register as a collage of "Blue Suede Shoes." Tenney achieves a similar effect acoustically in *Maximusic*: the tumult of the middle section can be heard as a microscopic rendering or amplification of the timbral variability inherent in the sustained cymbal roll, giving the listener a sense of being *inside* the shimmering sound of the cymbal. The strike of the tam-tam near the end signals a climactic arrival, a major structural point that shifts from one temporal perspective to another. Tenney does not claim an aesthetic preference for abstraction or collage because he conceives of them as part of the same spectrum, but the examples of artists he cites in his notes, the text-based scores he was scripting, and the performance activities with which he was involved at the time strongly suggest that he imagined himself moving in the direction of a radicalized version of theater.

Tenney further described his ideas regarding the relationship between theory and theater in a lecture at Yale University in the autumn of 1965. Speaking on the general topic of "electronic music," he emphasized that technology is merely a tool for composers, and that the real revolution concerned the new aesthetic perspectives that electronics made possible. He described two advantages of the medium, increased precision of execution and timbral variety, because tape recording made the vast assortment of environmental sounds readily available. In the lecture, he played several recordings, beginning with an excerpt from Ives's "Concord" Sonata in order to highlight the eclectic aspects of musical collage that would become common to much electronic music. He then credited Ives, Varèse, and Cage with integrating "outside life" into the realm of aesthetic perception and mentioned corresponding developments in the visual arts that saw a movement from painting to collage to happenings, which was, of course, the precise sequence of Schneemann's work. At the end of the lecture, Tenney described the etymological kinship of the words *theory* and *theater*, and remarked that a distinction between the practices they represent may no longer be useful.[50]

[49] Tenney and Schneemann were familiar with Marshall McLuhan's theories on cognition and communication technology from such recent publications as *The Gutenberg Galaxy* (1962) and *Understanding Media* (1964).

[50] Here is an excerpt of Tenney's lecture at Yale University on 11 November 1965: "I keep coming back to those impulses. One I related to *theory*, the other that is connected with techniques of collage

https://doi.org/10.1017/S175219631600050X Published online by Cambridge University Press

In the weeks following the Yale lecture, Tenney participated in Schneemann's *Noise Bodies* (1965), a duet in which the couple played each other's costumes of sounding found objects as a living audio-kinetic assemblage. He also performed another of his own theater pieces, *Thermocouple #2* (1965), a sequel to *Thermocouple #1* that offers a critical response to Operation Rolling Thunder, the mass deployment of U.S. ground troops in Vietnam (Figure 7). The text score asks a male performer to sit with his back to the audience at an exposed upright piano on which he improvises music that is restricted to symmetrical movement between the hands. As he plays, the female performer lights candles, cuts away his shirt, paints on his back and arms, and lights sparklers. (In the original version, according to Schneemann, Tenney wanted her to cut Vs into his back with razor blades instead of painting on him.[51]) In her own work at the time, Schneemann addressed the political turmoil in Southeast Asia with her film *Collage #2 ("Viet-Flakes")* (1966), for which Tenney provided the soundtrack. The film is a montage of atrocious images drawn from newsreels of the Vietnam War, and Tenney's recorded collage consists of a fragmented selection of contemporary popular songs with lyrics focusing on love (along with snippets of the duet from J. S. Bach's Cantata #78), which are carefully integrated with recordings of Vietnamese folksongs. As Schneemann and Tenney were collecting images and sounds for the film, and a few weeks after his sobering performance of *Thermocouple #2*, he wrote a journal entry that confirms his commitment to embracing a macroscopic, "theatrical" perspective on life as he had outlined in his lecture at Yale: "The direction of much of my thinking recently has been toward more *inclusive* forms of esthetic action," he writes. "If it then goes beyond mere perception to thought, feeling, and action, then the boundary between art and life finally disappears. 'Art' has been made less and less distinguishable from 'life,' but there has been no corresponding change in 'life' in the direction of 'art.' Is that what needs to be done?"[52]

The following year, Tenney began to reconcile what he had previously situated as the opposing concepts of abstraction and synthesis with *Fabric for Che* (1967),

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and painting and assemblage and montage and the kind of discontinuous continuity that you heard in most of these [tape] pieces—the way it moves out, the way it involves actual things in the world (or as nearly as they may) seems to me moves toward *theater*. *Theory*, *theater*. When I put it that way, I thought there was a striking similarity between those two words and I looked them up in the dictionary, and they both derive from Greek roots that mean 'to see,' 'to look at.' In the etymology there is no apparent difference, no particular reason is manifest there why they should seem so different. I'd like to think that maybe it was a limited view of the past that made them so different, and that somehow they were perhaps only just the more inward move toward the microscopic level as opposed to the outward move toward the large level, if this is what they represent. If that could be so, then there is obviously a completely continuous range of possibilities between them, so that no real discrepancy need exist or no discrepancy need sustain itself." An audio recording of Tenney's lecture is available on sound reels: "James Tenney Hastings Hall Electronic Music," Yale and New Haven Audio and Visual Recordings, RU 803, box 286, Manuscripts and Archives, Sterling Memorial Library, Yale University. Transcription by author.

[51] "Jim wants me to do a kinetic action where I cut Vs into his back with razor blades. He's at the piano, stripped to the waist—it's an anti–Vietnam War, protest work, and I can't do it. Other artists are able to slice each other and themselves a bit, but I can't do it." Schneemann, interview with the author, Springtown, NY, 3 June 2007.

[52] Tenney, notes on "Perception-Communication," 3 January 1966, James Tenney Fonds, 1998-038/007 (file 3), York University.

Figure 7. James Tenney, *Thermocouple #2* (1965). Photo credit: Carolee Schneemann. Used by permission of the James Tenney Estate and with the courtesy of Carolee Schneemann.

an electronic work dedicated to the Marxist revolutionary Che Guevara. Realized from taped sequences originally generated at Bell Labs, *Fabric for Che* was conceived as a single, continuously modulated sound, the details of which were determined by stochastic procedures, similar to *Noise Study*. "The atmosphere or character of this piece," Tenney explains, "has something to do with my disgust for the war in Vietnam."[53] In a letter to a colleague after a presentation of *Fabric for Che*, Tenney affirmed his resolve to transcend conventional dualities in order to achieve a more synthetic union of experience: "I have repeatedly found myself in the position of having to develop my faculties as a kind of 'bridge' between previously separated disciplines or aspects of life," he writes, "and I have come to believe that this is essential to any comprehensive—or even comprehensible—experience of 'reality' in our time. . . . Old boundaries are dissolving," he continues, "and more and more it is coming to be apparent that this dissolution of old boundaries is necessary to the development of an integral man, and integral mankind."[54]

[53] Tenney to Rudy Drenick, 19 December 1967, James Tenney Collection, Valencia, California.
[54] Ibid.

https://doi.org/10.1017/S175219631600050X Published online by Cambridge University Press

To Behold in Wonder

Tenney and Schneemann divorced in 1968, mainly due to his aspiration for raising children, which Schneemann strongly felt would have prevented her from pursuing her artistic work. Their separation devastated both of them, but they remained lifelong friends and kept each other informed of their ongoing work. In 1970, Tenney left New York to accept a position at the newly opened California Institute of the Arts, where he enjoyed a rich period of compositional productivity. After his first year at CalArts, he wrote the majority of a set of instrumental works dedicated to several friends and colleagues. Known collectively as the *Postal Pieces*, these aphoristic works present what Tenney called "singular" musical events that continuously unfold in arch forms and unidirectional processes, and they prompt the performer through both conventional notation and text instructions that appear on postcards (or "scorecards").[55] The *Postal Pieces* represent a distillation of ideas regarding the morphology and perception of musical form that occupied Tenney in the previous decade. The simplicity of concept and materials, the transparent predictability of form, and the deliberate avoidance of rhetorical drama encourage listeners to focus exclusively on sonic properties, while the physical format of the scores as deliverable postcards, some of which consist only of verbal instructions reminiscent of his earlier theater pieces, reflects Tenney's view of music as a social phenomenon that integrates art and life.

"My work has been developing in a way that I'm very happy about," Tenney wrote to Schneemann in 1971. "Hard to describe, except to say that Continuity and perhaps Singularity are very important characteristics of it. Also Simplicity. The key word is Continuity—as though the whole piece were one single sound, and it often is just that."[56] In his working notes from January 1973, Tenney clarifies his musical intentions of the *Postal Pieces* by referring to changes in his work that took place "in the last four or five years"—that is, circa 1968 or 1969, the tumultuous period following his separation from Schneemann. Reasserting the principles of simplicity and continuity, he seeks to apply artistic principles to his mode of living: "It is as in my own life now," he states, "finding enrichment and nourishment in the commonplace, the undramatic, as though reaching for a kind of peace, and a joy in that peace."[57]

Tenney's arrival at a correlation between art and life was certainly facilitated by his intimate association with Schneemann. The literature they shared provided a useful vocabulary for their conversations and the development of their ideas, but it was especially his participation in the theater events that placed his theorizing mind squarely in the activities of his body, which he acknowledged as the primary

[55] In the published collection of the *Postal Pieces*, Tenney included works that he had composed the previous decade, including *Maximusic* (1965) and *Swell Piece* (1967).

[56] Tenney to Schneemann, 16 November 1971, reprinted in Stiles, ed., *Correspondence Course*, 183.

[57] Tenney, "Valentine Manifesto," 8 January 1973, James Tenney Fonds, Music Scores files, 1978-018/003 (1), Clara Thomas Archives and Special Collections, York University Libraries.

source of his phenomenological inquiry. Composing, performing, and listening provide different vantage points from which to examine the connection between biological processes and the perception of artistic form, and he did not believe that he had fully processed information until he had cultivated an awareness of the physical sensations involved—that is, until he could *feel* it. According to Philip Corner, Tenney memorized grandiose works like Ives's "Concord" Sonata and Cage's *Sonatas and Interludes* in order to understand them. Evidently, Tenney felt it necessary to internalize their musical processes, to construct his own physiological model of their entropic properties. Memorization, as the expression goes, is the act of learning something *by heart*.

"The body is in the eye," Schneemann wrote in her notebook from the early 1960s. "Sensations received visually take hold in the total organism. Perception moves the total personality to excitation. Insight is a result of sensation's creative action on our capacity to experience and discover functional connections."[58] The body is also in the ear, and as Tenney later expressed in conversation with Peter Garland, "It's a question of feeling things more deeply."[59] One of Tenney's main objectives, in other words, was to experience the visceral ramifications of his research, whether it was an artistic or a scientific mode of inquiry. As he frequently stated, "theory must be heard," not as passive reception, but as active processing, and he regularly positioned his theoretical research as the systematic examination and clarification of an embodied practice.[60]

From the time of his initial explorations with Schneemann, Tenney dedicated the majority of his professional life to finding creative ways to reconcile such dualities as sound/noise, consonance/dissonance, harmony/timbre, theory/theater, mind/body, and art/life—all of which are artificial constructs of language that tend to impede the fluidity and rich variability of the lived experience. "If there's one common thread in my work, in spite of all the diversity of process or medium or form or whatever, it's the effort to integrate disparate things that have not previously been thought of as in the same ballpark."[61] Almost a decade after they separated, Tenney sent Schneemann a letter that nostalgically revisits their dichotomous activities by retracing the etymological roots of the words "theory" and "theater": "I can think of no better way to describe the apparent polarity but fundamental unity of our processes during the dozen-or-so years of our 'collaborations' than is suggested by the evolution of these words. That is, both *theater* and *theory* are derived from the

[58] Schneemann, *More Than Meat Joy*, 14.

[59] Garland interprets Tenney's statement as follows: "Of course, such a comment is utterly vague, but it suggests both deeper layers of emotional resonance and of intellectual capacity. At some creative point these two impulses cease to be distinct from one another, and merge in the creative work, in whatever medium." See Peter Garland, "James Tenney: Some Historical Perspectives" in *A Celebration of American Music*, ed. Richard Crawford, R. Allen Lott, and Carol J. Oja (Ann Arbor: University of Michigan Press, 1990), 485–86.

[60] "A new kind of music theory is needed," Tenney asserts, "which deals with the question of *what* we actually hear when we listen to a piece of music, as well as *how* or *why* we hear as we do." See Tenney, review of *Music as Heard: A Study in Applied Phenomenology* by Thomas Clifton, *Journal of Music Theory* 29, no. 1 (Spring 1985), 198.

[61] Tenney with Robert Everett-Green, "Crossing Musical Fences," *Globe and Mail*, 3 October 1992.

same root verb, *theasmai*, which in Herodotus, the *Iliad*, and the *Odyssey* is used to mean 'to gaze at or behold with wonder.'"[62]

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[62] Tenney to Schneemann, 23 September 1977, reprinted in Stiles, ed., *Correspondence Course*, 285.

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