Sound Against Music

The Musical Amateurs of the Judson Dance Generation

Benjamin Piekut



After leaving the Merce Cunningham Dance Company in 1965, Viola Farber danced in silence because she felt that she had too close of a relationship to music. She later explained to an interlocutor, "What I didn't want to do was ruin music for people so that every time one heard such-and-such a something piece of music, one would have to see the dance one had seen" (Farber 1991–92:141). But in a few years, she decided that she needed to face "the problem of sound" and invited composer Alvin Lucier to be the music director of her company. "I felt that the only thing that made sense was to use contemporary music [...]. It didn't make sense not to use music of other people who were living now with me" (138). Lucier was to Farber what John Cage had been to Merce Cunningham: two contemporary artists collaborating on an interdisciplinary project of its time, one that operated at the vanguard of two disciplines at once.

However, by the middle of the next decade, Farber recounts, she began to choreograph works to older music—"music music," in her words—by Beethoven and Chopin:

Then all that theoretical correctness went out the window, and I do think that in a way almost by what Merce did, he gave everybody permission to do whatever. Merce showed everybody that you don't have to dance to music. And you can dance to music, and it's different. (138)

You don't have to dance to music: Farber's comments indicate that she perceived of the collaboration with Lucier as having introduced sound into her productions, but not music—or that "contemporary music" by a "person living now" (Cage, Lucier) is somehow different from the "music music" by historical composers that she began to use around 1975. Farber further articulated the distinction between sound/contemporary music and music/music music when she recalled that Cunningham's work of the 1950s "had a lot of music in it," referring specifically to David Tudor's performances of Louis Moreau Gottschalk (for *Banjo*) and Erik Satie (for *Septet* and *Nocturnes*). Presumably, Cage's sonic contributions to such dances of the 1950s as *Minutiae*, *Suite for Five*, and *Antic Meet*, by contrast, were not music music.

What to make of this distinction between sound and music? I will make a lot of it because I think it was widely shared among the artists who came after Cage and Cunningham, especially among the dancers of the "Judson generation," an expression I use to refer to the constellation of artists associated with the Judson Dance Theater and its affiliates. In particular, I contend that during the 1960s many of these artists challenged the presumed requirement to dance to "music" created by a "composer" and performed by "musicians." In these moments, I think that the Judson generation's aesthetic investigations used sound as a medium while setting aside the institutions of music, which were still controlled discursively and practically by the composers and performers of idiomatic forms like jazz, classical music, and rock.

The Judson generation introduced a conceptual distinction between music (or music music) and sound (which is what the dancers made). They grounded their claim in the body (the sovereign territory of dance), in practices of listening (which require no musicians), and in the appropriation of "found music." This distinction between music and sound amounted to a soft critique of the institution of music by sidestepping it in favor of a concentration on sound's conditions of audibility. I call the critique "soft" because it was usually implied and never emerged forcefully with a clear program or goal.

Dance in the 1960s was a fitting site for the articulation of this critique due to the generative work of Cage, a reason that is well documented, and the increasingly widespread availability of the technological means for working with sound material, which has received less attention. Most importantly, these two conditions undermined the institutionalization of musical expertise and opened up the field to amateurs from other disciplines. By *amateur* in this context, I refer to artists who lack formal training or accreditation in a given discipline or who have oriented their public lives and recognition around a different artistic discipline—say, dance, sculpture, or film rather than music. Tacit or marked differences between professional and amateur positions in a given discipline persisted in the post-Cagean neo-avantgarde. The dancers may have been particularly eager to accept this opportunity because many of them expressed a wish to maintain the autonomy of their artform in the face of its established associations with elite art music.

There is a difference between the critique of music's institutions that unfolded inside music—Cage's work, for instance—and the one that originated outside of it. The key distinction again involves amateurism. Cage's aesthetic strategies and cheap commercial audio technologies afforded amateur participation in music, yes, but they also made possible the critique of music by nonmusicians.

Figure 1. (previous page) Five hundred of these individual receivers were made available to the public during Steve Paxton's Physical Things, 1966. (The Daniel Langlois Foundation for Art, Science and Technology, Fonds 9 Evenings: Theater and Engineering, 9 EV OBJ 00032684; courtesy of Cinémathèque Québécoise)

Benjamin Piekut (Cornell University) is a historian of music and performance after 1960. The author of Experimentalism Otherwise: The New York Avant-Garde and Its Limits (2011) and Henry Cow: The World Is a Problem (2019), he is also the editor of Tomorrow Is the Question: New Directions in Experimental Music Studies (2014) and coeditor (with George E. Lewis) of the Oxford Handbook of Critical Improvisation Studies (2016). piekut@cornell.edu

In the form of sound, music was cleaved from musicians and made available to artists—notably, dancers—outside of music's institutions.

Although Sally Banes correctly noted that older 20th-century composers "began to seem like [...] old-fashioned, second-rate program music" to the Judson dancers, I think their suspicion often reached a more fundamental level (1994:316). For the term *institution*, I follow Michel Foucault's capacious understanding: "Every kind of more-or-less constrained, learned behavior. Everything which functions in a society as a system of constraint and which isn't an utterance, in short, all the field of the non-discursive social, is an institution" (1980:197–98). To me, that means not just conservatories and concert halls, but also less concrete elements like conventions, subjectivities, and apportionments of authority—something akin to "the institution of marriage." The institution of music includes the elements of what musicologists call the "work concept," but it produces more than just musical works (Goehr 1992). It also makes "experts" of a kind—critics, scholars, and, most importantly, musicians (composers, conductors, performers)—and therefore shares some aspects of a "discipline" or "profession" (see Post 2009:751).

G. Douglas Barrett has persuasively warned against limiting one's view of what music is or can do, and I do not assume a firm ontological difference between music and sound; in fact, the discourse of music has always mobilized a complementary concept of sound. Instead, I hope to show how this group of artists, in this specific historical milieu, created performances that introduced a certain distinction between music and sound that is worth analyzing in great detail. It has gone undiscussed precisely because of its dispersal across artistic forms. Yet the ramifications of the distinction between sound and music were anything but faint, including the eventual articulation of a sound art concept by about 1980 and the resultant disciplinary and institutional confusions that continue to this day (on sound art, see Dunaway 2020; on confusions, see Piekut 2021).

Among the Judson generation there was a variety of engagements with music evident in their work over their careers. For example, Steve Paxton later recalled his desire in the 1960s to escape from the "dance and music" arrangement most readily represented by Cunningham and Cage. "I didn't have to use a Cage music form, for instance, and build a dance around it and call it my work," he commented. "And I didn't want to use music at all as a matter of fact because I sensed that that was somebody else's work and that I would be taking their time structure or at least having it influence my work" (Paxton 1983). Yet some of Paxton's most celebrated dances after 1975 used music and "took its time structure" to influence his work. His *Backwater* performances of 1977 and 1978, for example, combined Paxton's improvised movement vocabulary with the musical free improvisation of percussionist David Moss (Jowitt 1977; Rainer 1978). Ten years later, Paxton presented stunning solo improvisations to Glenn Gould's recordings of the *Goldberg Variations* (Jowitt 1987; see also Burt 2002). In 1999, *Some English Suites* offered the same with yet more Bach recordings (Anderson 1999). One could go on.

And yet, even in his *Goldberg Variations* dances, Paxton finds a way to distinguish Gould's recordings of Bach from "music." In his recorded introduction to Walter Verdin's 1992 film of the performances, Paxton comments that Bach's notation and Gould's recording removed them from the "living source of music, the movement of the body and the mind. Instead, these unchanging recordings are the equivalent of sound sculptures, or sonic paintings, or acoustical architecture" (Verdin 2016). Because we are different every time we listen to these recordings, Paxton implies that the essence of "music" has been transferred to the act of listening or to improvising a dance.

Paxton's friends and colleagues likewise continued to collaborate with musicians, composers, and improvisers in a wide range of ways. However, I want to analyze those practices that introduced a distinction between music and sound, so my discussion will pass over the important work of

^{1.} I prefer Foucault's definition of the institution of art to Peter Bürger's, which is both more specific: "the productive and distributive apparatus"; and more vague: "the ideas about art that prevail at a given time and that determine the reception of works" ([1974] 1984:22).

Meredith Monk and other choreographers when they collaborate less problematically with music: Simone Forti with Charlemagne Palestine or Peter van Riper; Deborah Hay with Pauline Oliveros or Ellen Fullman; Judith Dunn with Bill Dixon; Lucinda Childs with Philip Glass; Laura Dean with Steve Reich; Trisha Brown with Laurie Anderson; and numerous others.

Sound Made, Heard, and Found

Accepting the abandonment of musical and choreographic coordination in Cage and Cunningham, many of the Judson dancers experimented with ways to make the separation even starker. In *Street Dance* of 1964, Lucinda Childs and a colleague began a dance in Robert Dunn's studio that soon led them into the freight elevator and out of the building entirely. Meanwhile, her tape-recorded voice beckoned the audience to the windows as the dancers reappeared far below on East Broadway, where they navigated the street scene with stopwatches while Childs's taped voice narrated the signs, architectural features, and window displays of the shops they pointed at. "The live action of the performers (such as pointing things out) was synchronized exactly with the information on the tape (telling whatever it was that was being pointed to)," Childs later explained (1975:33).

After several minutes, they crossed back over and out of sight, re-entered the studio via the elevator, and turned off the tape machine "to wild applause," in Dunn's memory:

This dance remains one of the most mysteriously beautiful events I have seen, perhaps because of the distance and glass-separated soundlessness in which we experience Lucinda's miniaturized physical presence, in the same moment with the immediacy of her somewhat flattened but sensuous voice on the tape in the room with us. (Dunn 1989:12)

Indeed, although sound and movement were synchronized in the piece, the dancers and their audiences occupied completely separate listening spaces; *Street Dance* went beyond affirming the independence of sound and vision to address the very conditions of sound's audibility.

The disembodied voice of Childs provided the link, and many of her colleagues joined her in exploring the possibilities of speech and song. Speech, according to Yvonne Rainer, "was an isolated element that was meant to enrich a sequence of events and very often replaced music" (in Béar and Sharp 1972:55). Dancers delivered written (Childs's *Museum Piece/Screen*, 1965) or improvised (Trisha Brown's *Accumulation with Talking*, 1973) monologues about the dance currently underway, or they recited texts about other more oblique subjects (Rainer's *Ordinary Dance*, 1962). They wrote dialogues (Rainer's "Love" duet in *Terrain*, 1963) and improvised group conversations (Grand Union in nearly all of their performances between 1970 and 1976). They gave directions to the audience (Forti's *Herding*, 1961) and asked them to shout at the dancer onstage (Brown's *Yellowbelly*, 1969), or they gave instructions and feedback to each other about what they were doing (Rainer's *Performance Demonstration*, 1968; Brown's *Leaning Duets*, 1970).

And, as in *Street Dance*, dancers also seized on the tape recorder to route speech through a loud-speaker and add temporal complexity to the live performance. In *Spilled Milk* (1974), for example, David Gordon spoke and sang a loosely improvised text while two cassette players on his belt supplied additional channels of speech (Duncan 1974a). And much of Rainer's work after about 1965 included spoken texts played back on tape, including *Parts of Some Sextets* (1965) and *Performance Demonstration*.

Simone Forti recalls that all this talking began in California on Anna Halprin's dance deck, and Janice Ross describes instances of Halprin and her students and collaborators reciting poetic texts while dancing in the late 1950s (Forti 1994; see also Ross 2009). We might interpret this instance of the speaking body as a natural extension of the philosophy of Halprin's teacher, Margaret H'Doubler, who rejected the expressionism and narrativity of earlier modern dance in favor of an anatomical exploration of the biological body, its limits and capacities. (Perhaps unsurprisingly, H'Doubler portrayed music in her writing as the thing to get free of: "Compositional form is no longer dependent on musical forms," she wrote in 1945. "Today dance is free to choose for its

accompaniment from a variety of possibilities—speech, song, sound effects as well as music" [in Ross 2009:48].) One can identify the faint persistence of this pedagogical tradition in the comments of Rainer, a former participant in Halprin's workshop: "Why did I want to use my voice? I wanted to use everything having to do with the body, including what I was learning formally in dance class, ordinary movement, and sounds" (Rainer 1997). Rainer's solo At My Body's House, for example, was accompanied by the sound of her own breathing picked up by a carbon throat microphone. (The engineer Billy Klüver had custom engineered a wireless transmitter for her so that the signal could be sent to a loudspeaker without cables [Rainer 1974:295].)

By grounding the voice in the body, dancers formulated sound as a natural consequence of their own investigations of movement, rather than as a supplementary element from an external discipline. Forti developed the most extensive and varied experiments in this area; as Meredith



Figure 2. Carolee Schneemann, Noise Bodies, 1965. (Photo by Charlotte Victoria, © 2023 Carolee Schneemann Foundation/Artists Rights Society (ARS), New York; courtesy Hales Gallery and $P ext{-} P ext{-} O ext{-} W$, New York)

Morse writes in her fine book on the artist, she "sought to externalize the body's interior materials. The voice was useful as a bodily analog to this project" (2016:88). In *Rollers* (1960), two performers sit in wooden boxes on swivel wheels while audience members yank and swing their attached ropes until the boxes and their cargo are sent whipping around the space. Forti asks the performers to improvise a vocal duet, but the thrill and danger of the process eventually commandeers their vocalizations, highlighting a kind of nonvolitional relationship to sound production. Following Steven Connor, we might call this an instance of "body-voice" (2003). Likewise, in the music she recorded for Brown's *Trillium* (1962), Forti constricts her throat above the vocal folds to produce squeaks, screeches, and scrapes of vocal fry—the sounds are both within and beyond her control (Forti 1962). A few years later, another structured improvisation, called *Throat Dance* (1968), would similarly explore four distinct "areas" of the vocal apparatus. "Each section had its own place in the room," Forti explains, linking the internal movements of the body with external locations in the performance space (1974:92).

Carolee Schneemann's *Noise Bodies* (1965) did not employ the voice, but its roots in the corpus are indicated by its title. Schneemann and her partner, James Tenney, donned sculpture suits of clangorous accessories: bicycle horns, teapot lids, ice trays, cans, toys, bells, metal grates, chains, chunky bead necklaces, and whistles. They approached each other in darkness, lit by small flashlights

amid sporadic clatter and squeaks. When they drew within six feet of each other, they circled one another while a spotlight illuminated the space between; each then took up an item as an improvised drumstick and began to "play" the other. The activity built to a climax, involving other props, until they exited (Breitwieser 2015:156–57). The work's title indicates that music was not Schneemann's concern. Instead, the performance seemed attuned to how the manual stimulation of the prosthetic body could sound out a mutual excitation. It also concerned when and how the audience heard things, or what we might call "conditions of audibility," and in this sense, *Noise Bodies* represented a second group of works by dancers that explored the performer's capacity as a listener—and chooser—of music.

Forti was particularly active and innovative in this regard. In Accompaniment for La Monte's 2 Sounds and La Monte's 2 Sounds (1961), the dancer steps into a hanging loop of rope that assistants then twist up, releasing the otherwise still performer into a spin. While she unwinds and eventually comes to rest, dancer and audience listen to the tape piece 2 Sounds by La Monte Young, who had worked on it extensively at Halprin's summer workshop in 1960. Here Forti composes not with music but with its conditions of audibility. The same goes for *Platforms* (1961), where a man and woman climb under wooden boxes and whistle back and forth through the crack between the boxes and the floor. "It is important that the performers listen to each other," Forti explains (1974:62). For Cloths (1967), Forti created a soundtrack by recording friends singing their favorite songs and then distributing them—about eight songs—across two tapes, with silence in between. Both tapes played during a concert presentation, their sound augmented by the live singing of three performers. Alvin Lucier took a similar approach in his music for Viola Farber's Willie I. He asked every dancer in the company what their favorite sound was and then collected these sounds on tape (horses' hooves, rocks falling down a hill, thunder, etc.). Each sound appeared whenever its corresponding dancer was onstage. By isolating and then formalizing the act of selection, such works declined Cage's invitation to surrender one's likes and dislikes but maintained a certain allegiance to the principles of indeterminacy; in so doing, they found new space in the terrain opened up by Cage but not exhausted by him.

Forti's Over, Under and Around (1961?) treated sound in yet another distinct manner. "A radio, tuned to any station, gives cues for when to change to the next kind of action or to the next base," Forti explained. Players listen for certain spoken letters in the broadcast, which cue them to perform predetermined actions in relation to the other performers. The work treated sound as a trigger for other actions, a signal in a chain of responses. Childs experimented with a similar approach in 1966 in the piece she contributed to the 9 Evenings: Theatre and Engineering performance series, called Vehicle—although the act of listening was delegated to a machine.² The engineer Peter Hirsch of Bell Labs oversaw the construction of a Doppler sonar device that would respond to the presence of a moving object crossing its 70khz ultrasonic beam by producing a pitch. The speed of the object determined the pitch's frequency, and the object's size equated to amplitude. For the performance, Childs had hung a transparent cube and three red buckets filled with lightbulbs from the rigging; she swung these objects into the beam of the Doppler sonar, which resulted in swooshing tones and visual patterns projected onto one of three screens. Sound made one further contribution to the operation of Vehicle: the lightbulbs in the buckets and strewn elsewhere around the set turned off and on intermittently according to trigger frequencies in a live broadcast of WQXR, New York's classical music station (Schneider n.d.a:9-10).

In fact, a number of performances in 9 Evenings exploited sound's status as a signal, and all relied on the expertise of the Bell Labs engineers. For example, for Carriage Discreteness, sound was the very modality through which Rainer controlled the choreography: she sat in a balcony and

^{2. 9} Evenings was a series of performances in the autumn of 1966 in New York City that combined performance and technology by fostering collaborations among artists and engineers. After these events, Billy Klüver of Bell Labs and Robert Rauschenberg would go on to found Experiments in Art and Technology.

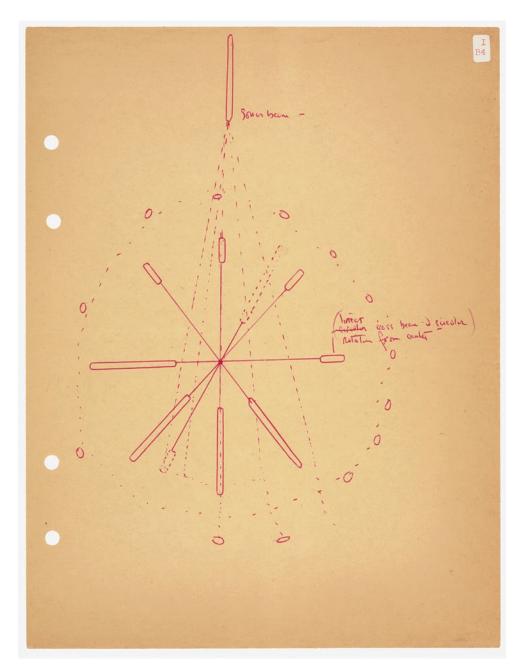


Figure 3. Lucinda Childs, Vehicle, diagram of stage apparatus, 1966. (Getty Research Institute, Los Angeles; 940003)

directed the activity of her performers via walkie-talkie to the small receivers worn on their wrists. Meanwhile, Bell Labs' Theater Electronic Environmental Module system broadcast control signals for a predetermined sequence of events that included lighting changes, the operation of slide and film projectors, and the automated movement of many objects triggered by machine listening. In *Grass Field*, Alex Hay's desire to amplify the "internal sound potentials of the body" turned out to be the most difficult puzzle faced in the festival (9 Evenings 1966b). In one engineer's memory:

The process of becoming familiar with what type of sounds existed in the body and with what type of sensors to pick them up became a learning process by itself. Specialists at several

hospitals were consulted; techniques for attaching the probes to the body were studied. Medical supply houses were quizzed and a great mass of technical material was studied to determine the best approach to take. About one month before show time there was still nothing working for Alex. The problems were formidable. (Robinson n.d.:20–21)

The main issues turned out to be portability and wirelessness. Although there existed medical sensors for listening to the activity of the brain, heart, and internal organs, the signals needed to vary the frequency of an oscillator, which in turn modulated an FM transmitter that sent its signal to a receiver in the control room. To power the wearable oscillator and transmitter, numerous heavy batteries had to be placed strategically on the body of the dancer.

For his sonic contribution to Judith Dunn's *Motorcycle* (1965), Robert Dunn engaged the work's conditions of audibility by drawing attention to the ambient space of the performance. He followed a predetermined time structure by turning on and off a portable radio; the volume was kept at a low level, Dunn recalled, in order to draw attention to small sounds in other parts of the building and on the street—a basketball game downstairs, the fire engines outside (Dunn 1989:13). Other works engaged more directly with physical movement and the location of sound in the manner of Forti's *Throat Dance*. Paxton's work for *9 Evenings*, called *Physical Things*, drew upon the expertise of Bell Labs technicians to help him locate sound and listening in specific spots during the unfolding of the work.

"I'd never used sound, and I decided that I wanted to," he explained to Forti at the time (Paxton 1966:1). His original idea had been to give each audience member a hat with a speaker inside, so that as they moved they would hear different things depending on where they were located. "Can sound 'materialize' in a space at different discrete points?" he asked in a meeting with engineers. "Without speakers? Can the surrounding area be silent?" ([Wolff?] 1966). It turned out to be a difficult problem that the technicians solved by replacing the loudspeaker outputs from an amplifier with a loop of wire, which creates a small broadcast signal that can be picked up by a second amplifier with a magnetic pickup coil. In its final form, *Physical Things* included 22 of these large wire loops, suspended in a large net over the heads of the audience. Each loop defined a circular soundfield on the ground about eight feet in diameter. The engineers acquired 500 small transistor radios to use as magnetic pickups (see fig. 1); each audience member could hold one up to their ear and move around to hear different things. Paxton explained, "Change of 'station' achieved by changing location. Ear equals place" (Paxton n.d.).³

The 22 wire loops transmitted prerecorded sound from 11 stereo tape recorders (presumably, each stereo tape sent discrete audio to two wire loops).⁴ Records indicate that the only musical selection one might hear was Mahler's *Das Lied von der Erde*; otherwise, most of the tapes contained speech of various kinds, including a dialogue between an astronaut and mission control, a self-hypnosis record devoted to helping the listener quit smoking, readings from the Bible, and a history of hockey in India.

One final example of a work attuned to its conditions of audibility takes us into a discussion of found music. Robert Rauschenberg's *Open Score* was a complex performance, and I will concentrate only on its sound. The artist and his engineering collaborators affixed contact mikes to two tennis racquets and inserted FM transmitters inside their handles. With each serve and backhand volley, the players—Frank Stella and Mimi Kanarek—sent thwonks booming across the loudspeaker array in the interior of the 69th Regiment Armory on Lexington Avenue in New York City. Once the hall gradually darkened to black, a few hundred extras emerged from backstage and performed

^{3.} The piece included many other elements, but I am concentrating on the sound.

^{4.} The documents aren't entirely clear on this point. For example, technical notes list only 10 tape recorders, yet it is not possible to get 22 discrete channels out of only 10 tape machines, unless two of them were three-track, which would have been exceedingly uncommon in 1966. So, I am making some educated guesses in my estimation of the technological backend.



Figure 4. Steve Paxton, drawing of radio loop system for Physical Things, 1966. (Getty Research Institute, Los Angeles; 940003)

small actions while infrared cameras cast their images onto a large screen. The audio component for this section of Rauschenberg's work was twofold: First, tape recorders that had captured the racket in the first section now played those sounds back, as if the match were continuing in the dark. Second, the audience heard a tape of voices that had been recorded immediately before the performance, wherein each extra spoke their name into a microphone. In my interpretation, Rauschenberg wanted to activate the enormous space of the Armory by flooding it with a crowd of performers, but he interrupted this intention in a characteristically Rauschenbergian way by killing the lights and displacing the activation into the sonic register, where a string of names droned on in an endless spoken sequence substituting for the spectacle of a crowd that could, if visible, have been apprehended in an instant.

In any case, this tape was misplaced between the first performance of *Open Score* and the second, a problem that Rauschenberg solved for the final event with flair: he asked Forti to sing a Tuscan folk song from inside a closed burlap sack, carrying her recumbent body around the space while she sang (Schneider n.d.b).

Having Forti sing a song wasn't original to Rauschenberg. Forti had been incorporating song into her own practice at least since the early 1960s. Take her first New York presentation, the

^{5.} On the first night there was a malfunction and only one of five tape recorders played back, leaving silences while it rewound.

well-known See-Saw (1960), in which two performers (she specifies a man and a woman; Robert Morris and Yvonne Rainer at the premiere) balance on an eight-foot-long plank set on a fulcrum. Lasting about 20 minutes, the performance advanced through several stages, from the arrangement of the apparatus itself to seated see-sawing and eventually more complex movement combinations that explored the equilibrium of the structure. The piece closed with a richly symbolic pair of episodes. First, Morris read aloud from Art News in a monotone voice while Rainer made a commotion, "throwing herself around and shricking," according to Forti (1974:39). Then they moved to stand side by side at the center of the board, shifting the balance gently by bending their knees. During this final position, and from the back of the room where she had been operating the lighting cues, Forti sang the old song "Big Chief Buffalo Nickel," popularized by Jimmie Rodgers's recording (as "Desert Blues") of 1929. "Which is some weird song I got off a record somewhere," she later recalled. "It's just a goofy song" (1994:48). The choice of repertoire—with its themes of buffalos, Indians, and the US West-resonated with another found object in the piece: a children's toy in the form of a can that made a mooing sound when tipped over and that Forti had attached to the bottom of one side of the plank. Yucks aside, Forti seemed to be making an oblique reference to her own status as a recent arrival to New York from way out west, perhaps homesick for California.

Morse has perceptively analyzed the ways that Forti used her voice to elaborate and redirect the concerns of the post-Cagean avantgarde. Cage himself had decided by 1950 "to let sounds be themselves rather than [...] expressions of human sentiments" (1961:10) and, in the 1960s, Rainer offered a sustained critique of the performative emotionalism of modern dance, which she parodied most directly and famously in the paroxysm of screaming that concluded Three Seascapes (1962), perhaps in homage to her role in See-Saw two years prior (the screaming ended abruptly and the soloist walked calmly offstage). By contrast, Morse writes, Forti's "folksongs and vocal accompaniments seemed emotionally loaded but did not strive to ironize emotion and expressivity in the way that Rainer and Judson Dance Theater artists had" (2016:108). Nonetheless, Morse argues, Forti still explored tactics to remove, mute, or diminish the personal or emotional content of the voice. In See-Saw, Forti displaced her connection to California by articulating it through an appropriated piece of mass culture—just a goofy song heard on a record—and underscoring its status as canned music with the found object of the moo can. And her vocalization from the back of the room, out of sight, introduced a certain alienation between the emotional memory of the recent past and its trace in the formal outlines of the work. "What was left was an affect-a forcefulness or intensity of feeling placed at some distance from the personal" (Morse 2016:114). Therefore, the found objects of "Big Chief Buffalo Nickel" and the moo can enabled Forti to balance, like the see-saw itself, between a masculinized, displaced objectivity and a feminized, embodied emotionalism.⁶

Forti's selection of an old song as part of her work prefigured a general move among the Judson-era dancers toward what one might call "found music." I mean that they put music *qua* music into brackets, as a foreign element to be worked upon or a regular part of everyday life to be incorporated into a performance, rather than as part of a continuous domain of formal innovation shared across artistic disciplines. For example, during a Grand Union residency at Oberlin College in 1972, David Gordon on his way to rehearsals heard a student practicing Schubert every day. He eventually asked permission to tape record her practice sessions, mistakes and all, and use them in his upcoming piece, *The Matter*. She agreed, and he did (Perron 2020:143).

The rapidly expanding availability of consumer-grade tape recorders during this period had a direct impact on practices of appropriation. When the collage aesthetic of neo-Dada met the ease of 1/4-inch magnetic tape, artists had a readily available method of appropriating or generating

^{6.} One wonders, again, how Forti's interesting extensions of Cagean cool might have been picked up on by Rainer, who described the objects in *The Mind Is a Muscle* like this: "Objects that in themselves have a 'load' of associations (e.g., the mattress—sleep, dreams, sickness, unconsciousness, sex) but which can be exploited strictly as neutral 'objects'" (1974:106).

their own musical material without the filter of music and its institutions or experts. Rauschenberg's soundtrack for his first dance, *Pelican*—a tape of "telephones ringing, cars honking, crickets chirping, and performances of music by George Frideric Handel and Haydn"—is just one example of many from this period (Öhrner 2007:35). These collages allowed an artist to evade what was perhaps music's most intractable problem: getting other people to do what you want. This problem is especially hard when you don't want to wrestle with the two most salient means of guaranteeing a predictable outcome: write a score for a trained musician; or gather a group who share a common musical tradition. With the tape recorder, one could use found music without requiring a found musician.

A week or two ahead of a performance of her *Continuous Project—Altered Daily* at Amherst College, Rainer asked Barbara Dilley, one of the dancers, to surprise the others: "New instruct[ion:] bring along a tape of something you would like to hear and/or dance to during Amherst perform[ance]. don't tell nobody" (Rainer 1969). Rainer was interested in the mere foreignness of whatever might come on the tape, not in the aesthetic project or the history that the sound material might participate in. In fact, the found material's contrast with the milieu of the Judson generation seemed to be precisely her point, as with the recorded film scores of Dimitri Tiomkin and Henry Mancini—not to mention Frank Sinatra's "Strangers in the Night"—that Rainer integrated as interludes in *The Mind Is a Muscle* (1968). A few years later, the dancers of the freely improvising Grand Union would "just mosey over to the record player and put on some music when it seem[ed] like a good idea," wrote Kathy Duncan in the *Soho Weekly News* (1974b). That might include the Beach Boys (Grand Union 1975), Bob Dylan (Béar 1975), or Herbie Hancock records (Perron 2020:228) they may have purchased at a local shop on tour (69).

In the Cage-Cunningham collaboration, by contrast, the music and dance participated in the same ideology of modern art's teleological progress as equal partners with an expectation of originality. They spoke and acted in the same world. Such an arrangement is quite distinct from whatever was happening when Rainer and Paxton blasted the Chambers Brothers' version of "In the Midnight Hour" during *Trio A*.

It is always worth paying close attention whenever Black vernacular culture appears in contexts like this or any Euro-American avantgarde arts scene. Rainer and her colleagues likely felt no substantive challenge from a work of popular music, as compared to the new contemporary music considered part of their own world. An episode from the performance history of Grand Union, as narrated by critic Noel Gillespie of *Dance Magazine* in 1974, supports this interpretation:

at pratt, five little black kids decided they wanted in on the fun. trisha [Brown] put on a wig and hat and tried to scare them back into non-participation, it didn't work. david gordon, the most theatrical union member, seemed the most disturbed by the outside threat. doug dunn and steve paxton more or less ignored the heckling, but nancy lewis and barbara dilley kept giving the kids sly little smiles as if they almost welcomed the intrusion.

at the end, the kids took over, rolling oranges, exhibiting their yoyo expertise, funky-chickening it up to the record-player soul of "bright, bright sunshiney day." The union members sat on the sides and watched, having changed places with their challengers. (Gillespie 1974)

Ceding control of the improvised performance space to take up roles as spectators was not the Grand Union's customary response to outside intrusion, especially after 1972 or so. "Yep, we had to stop that," Dilley told an interviewer in 1990. "We didn't want that" (Kraus n.d.:7). Observers have reported numerous techniques used by performers for thwarting unwanted attempts at participation (Perron 2020:260–67). So what made this situation different? One can easily distinguish actual child's play from the "child's play" of professional dancers, of course, and that goes much of the way toward an answer, but I also think the "outside threat" diminished in importance the further it came from the center—and dancing the funky chicken to a Johnny Nash record without critical irony was far indeed from the center of Grand Union. "I'd been trained in the elitest of the dance, the ballet and Cunningham," Dilley said, "and I wasn't particularly involved in other forms of dancing





Figure 5. Valda Setterfield and David Gordon in a performance by Grand Union at La MaMa in New York City, April 1976. (Photo by Amnon Ben Nomis; courtesy of the La MaMa Archives/Ellen Stewart Private Collection)

at that point in my life" (in Béar 1975:34). In fact, Gordon recalled a disagreement over music in the later years of the group: Dilley preferred "good, better music" over the thriftstore records routinely selected by Gordon, Paxton, and Dunn. "She wanted not to be dancing to this terrible junk" (in Perron 2020:295).

So the funky chicken, Johnny Nash, the Chambers Brothers, and other artifacts of Black popular culture only assumed their status as found objects in a context where they never "belonged"

in the first place except as foreign elements—junk?—to be appropriated as props. The list of contemporary musical collaborators for these dancers throughout the rest of their careers—Alvin Lucier, Philip Corner, Charlemagne Palestine, Steve Reich, Philip Glass, Ellen Fullman, and others—makes clear that the music that did belong was what Rainer called at the time "serious high art" music. "In that area, whatever dialectic has already been mapped out by dedicated composers I here and now pay all due deference to (without having the slightest interest in listening). I simply don't want someone else's high art anywhere near mine," she explained in her tape-recorded voice-over for *Performance Demonstration* (Rainer 1974:112). Instead, Rainer chose silence, live dialogue, recorded speech, film scores, or pop singles.

"Actually, there's words for that," Paxton said to Forti in 1966. "It's public domain." He was trying to explain his preference for the kinds of sound that one heard in *Physical Things*. He wanted "connotative" material, like tapes of the Army-McCarthy hearings of 1954 or "Mahler and things like that," all of which he understood to be different from "private poetry or something that remains art, [...] something that hasn't had wide exposure" (Paxton 1966). If he used recordings of "private art" (which I imagine to Paxton meant contemporary, avantgarde music by someone like Cage), then, he feared, the audience "wouldn't know that somebody else [i.e., not Paxton] had actually made it." Paxton's desire for content that obviously came from somebody else suggests that he wanted a clear demarcation between found music or speech and whatever it was that he was doing, which concerned sound itself: its rootedness in the dancing body, its conditions of audibility, its physical location, its function as a signal or trigger, or its status as a found object.

The Critique of Music

In my view, the dancers introduced this conceptual distinction between sound and music as part of a soft critique of the institution of music. That is how I interpret Paxton and Rainer's performance of *Music for* Word Words of 1963, when they presented the music for a dance (*Word Words*) that had taken place the previous evening (Banes 1993:85, 97). It was as if Cage and Cunningham's strict separation of music and dance was not even enough for these two—they wanted music and dance to be distinguished even more sharply.

Of all the artists surveyed here, Rainer came the closest to expressing a clear critique of music. Indeed, she has a well-documented history as a self-proclaimed hater of music. The only "remaining meaningful role" for music in relation to dance, she stated in the taped monologue that accompanied one part of the 1968 *Performance Demonstration*, "is to be totally absent or to mock itself" (Rainer 1974:111). The irony of this declaration, as Douglas Crimp writes in his essay, "Yvonne

Rainer, Muciz Lover," is that Rainer found many critical uses for music throughout her career as a dancer, choreographer, and filmmaker (Crimp 2006).⁷

In her notes from this period, Rainer praised the tendency among her comrades "to strip away all pretense at transformation and present the real thing [...], to carry a real radio for music accompaniment rather than have references to it written into a score" (Rainer 1963–65). She was referring to William Davis's *Field*, presented at Judson Church in January 1963, the title of which referenced the electromagnetic field of radio waves. Both dancers in the duet wore transistor radios on their belts, each tuned to a different station; correspondences between movement and sound (music or speech) were entirely coincidental (Banes 1993:92–93). Rainer was probably comparing Davis's use of the radio with that of Cage in *Imaginary Landscape no. 4* (1951), a meticulously scored work for 12 of the devices that, whatever its innovations, never dispensed with the institutional frame of music: it had a composer, score, performers, title, and a recognized format of presentation, the recital. The sound for *Field* could claim none of these institutional elements as music (as dance, it had an author, title, performers, and format—but its "music" did not).

Yet the conceptual and institutional disruptions that enabled the experiments of Rainer and her colleagues originated in the main from music itself. "The musicians and the musical ideas, especially John Cage's, as were interpreted and re-interpreted and renewed by Bob Dunn, were what was important," Judith Dunn commented at the time (in Ballet Review 1967:50; see also Morse 2016:8). The integration of "nonmusical" sound into the aesthetic domain had been evident at least since Edgard Varèse's works of the 1920s, Carlos Chávez's Hacia una nueva música: Ensayo sobre música y electricidad (1936), John Cage's "The Future of Music: Credo" (1939), and Cage's astonishing string of works after 1949: "Lecture on Nothing" (1949), Concerto for Prepared Piano and Orchestra (1951), and 4'33"(1952).8 By the early 1960s, Chávez's importance in the anglophone world had diminished, and Cage's leadership of the postwar US avantgarde had been secured. Indeed, most of the sonic strategies pursued by the younger generation had already been outlined in explicit or germinal form in Cage's earlier work. With the Concerto for Prepared Piano and Orchestra, Cage used the square-root rhythmic structure of earlier compositions to articulate a fundamental question characteristic of the Judson artists: whether sound appeared at all in each durational unit. In the "Lecture on Nothing" and associated texts, Cage's equation of silence with nonintention foregrounded sound's conditions of audibility. By as early as 1942's Credo in Us, he was integrating existing recordings as found music in his own work, and he had been thinking of the physical location of sounds in practical terms with the Black Mountain Event of 1952, but also with later works like Cartridge Music (1960) and its kin, in which he conceived of sounds as originating on or off the instrument.

Cage's interventions of the 1940s and 1950s had destabilized music as a category distinguishable from sound or noise, yet his invitation to join him in this expanded world of sound would never have been so widely accepted were it not for the modern war machine that had produced abundant and cheap electronics after World War II. Carbon throat microphones, for instance, had been developed in the 1910s to enable spoken communication in the noisy cockpit of an airplane. By the 1950s, they could be found easily in the surplus electronics shops of lower Manhattan, which is probably where Cage, Tudor, and Rainer procured theirs, along with contact microphones and piezoelectric transducers. Furthermore, the invention of the transistor at Bell Labs in 1947, substantially bankrolled by the US military, led to countless advances in the portability and miniaturization of electronic equipment. Performing functions like switching and amplification, transistors made possible the handheld radio, durable amplifiers, and consumer-grade tape recorders by the

^{7.} Crimp restricts his insightful analysis to music's narrative affordances, rather than to its function as a found object, its references to high and low positions in the cultural field, or, ultimately, its displacement by a related category of sound itself.

^{8.} One should also note the integration of "barnyard" and "jungle" sounds in the jazz of the 1920s and 1930s, particularly in Duke Ellington's Cotton Club music. But my sense is that this set of references was simply unknown in—or ignored by—the Judson scene.

end of the 1950s. (Although comprehensive sales figures for tape recorders before 1960 are not available, one historian estimates that sales quadrupled between 1952 and 1959 [see Morton 1995].)

It would not have been possible for artists in disciplines outside of music to experiment with sound applications of their own without the establishment of these interlocking cultural and technological conditions. These cheap and widely available audio technologies allowed a nonmusician to enter the field of sound easily, once "music" in the art domain had been redefined to include all sound, noise, and silence.

The elaboration of these conditions was manifold, but perhaps the gravest effect had to do with the fate of professionalism. Cage's reorientation of music around practices of listening raised profound questions about how one sorts out the experts from the amateurs. If music were really simply a matter of intention or audition, then what role should be played by traditional producers of musical expertise like schools and conservatories? None. That meant that students otherwise untrained in music's technical histories—Allan Kaprow, Alison Knowles, and George Brecht, among many others—could participate and excel in courses on experimental composition taught by Cage at the New School for Social Research between 1956 and 1960. Indeed, his course description specified that it was "open to those with or without previous training" and promised a departure from "conventional theories of harmony, counterpoint and musical form" based on pitch in favor of "solutions in the field of composition based on other components of sound: duration, timbre, amplitude and morphology" (New School 1956:122; see also Kim 2008:130–37).

As an alum of that course, Robert Dunn transferred some of Cage's lessons to the workshops he gave on choreography in Cunningham's studio between 1960 and 1962, particularly the composer's schema for composition: structure, method, materials, and form (see Cage 1949). "This can readily be applied to any time-art, or real-life situation," Dunn wrote in 1972. "It has helped bridge the gap between art and life [...] and bring into awareness a rich range of new possibilities for theater" (1972:51). Indeed, Dunn's teaching inspired the dancers later associated with Judson Church to follow Cage's example by creating scores and then presenting realizations of them. Particularly important was Cage's interpretation of how Erik Satie treated rhythm as a neutral container for material that didn't necessarily develop harmonically or melodically, one aspect of a greater cult of impersonality that the Judson dancers picked up from Cage (see Cage 1991)."

A busy Rainer seems also to have sat in on Richard Maxfield's course on electronic music at the New School during the early 1960s. Her notes from the class strengthen the impression that music's existing institutions had diminished in importance for the younger generation. After scribbling the "usual def. of music" as rhythm, melody, harmony, timbre, form, and dynamics, Rainer indicates (with an arrow) that the class would be studying something else, which she labelled "Art of Sound," wherein rhythm becomes "duration," melody becomes "succession of tones," harmony becomes "vertical relationships of tones simultaneously," and so on. In this manner, Maxfield redefined the constitutive categories of music in terms of something new. According to Rainer's notes on the discussion, a new set of texts—for example, Leo Beranek's *Acoustics* (1954) and Harry Olson's *Elements of Acoustical Engineering* (1947)—joined examples of electronic music from Ernst Krenek, Otto Luening, Karlheinz Stockhausen, and Cage to fill out this curriculum in the art of sound (Rainer 1960–62; see fig. 6). The old authorities on music and its history were nowhere to be found.

By undermining the musical expert's claim to authority, then, sound after Cage opened up an underdetermined space where training and discipline were thrown into question. ¹¹ Signs of this upheaval were common. Take Rauschenberg's *Oracle* (1965), a five-piece sculpture that included five

^{9.} Cage taught a course on Satie at the New School in the fall semester of 1957.

^{10.} Rainer would have known Maxfield from the James Waring company. In an email message on 29 October 2023, Rainer recalls that she found the course too technical and dropped it after one session. I think her notes indicate attendance at more than one meeting, but not the entire course (Rainer 2023).

^{11.} Jazz produced its own signs of anxiety around expertise in debates about whether the free jazzers of the 1960s could "really" play.

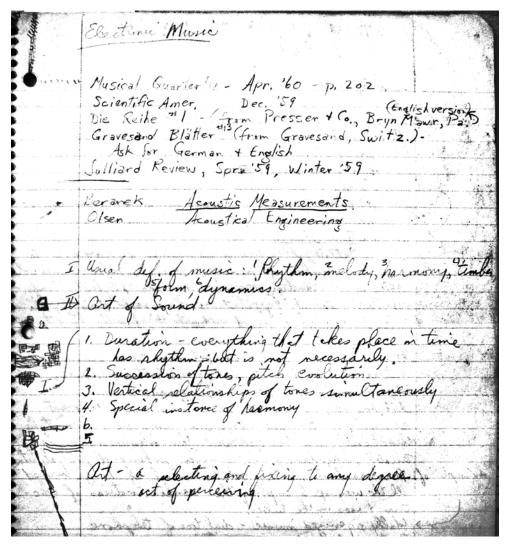


Figure 6. A page from Yvonne Rainer's 1960 notebook (edited for legibility). (Getty Research Institute, Los Angeles; 2006.M.24)

AM radios partly controllable from one central station: a staircase upon which the "conductor," as Rauschenberg called the viewer/listener, could sit and shape the sound. Because he was an amateur in electrical engineering, the artist enlisted Bell Labs engineer Billy Klüver, who possessed the technical expertise to configure the work's wireless signal transmission system. But it was precisely such ambiguities of know-how that Rauschenberg wanted to explore. He later explained: "The intent was to make a musical instrument that could be performed on, with or without sophistication" (in Klüver 1991:83). Rauschenberg's statement applied equally to himself as it did to the experiencer of his work.

Into the void cracked open by the waning authority of musical expertise rushed other forms of knowledge about sound, as Maxfield's course materials had demonstrated—namely audio engineering, signal processing, and acoustics. For Rauschenberg and the younger generation of experimenters in New York, that technical knowledge was institutionalized most visibly at Bell Labs, located across the Hudson River in Murray Hill, New Jersey; this was so especially after the spectacle of 9 Evenings: Theatre and Engineering in autumn 1966 and the subsequent founding of Experiments in Art and Technology. A singular corporate entity, Bell Labs' entire history was devoted to research on hearing, recording, compressing, transmitting, amplifying, and broadcasting sound (Gertner 2012).

Both "music" and "sound" could present technical difficulties. In the former case, a musician resolved technical problems by drawing on their training and experience to manipulate musical materials with expertise. In the latter case, technical problems were handled by an engineer, a non-artist who was trained and experienced as an audio technician but not in the domain of artmaking. "The first thing we have to get over is that you are artists and we are scientists," engineer Dick Wolff warned in a planning meeting for 9 Evenings. "We make art in our own field and you make science in yours. [...] The artist and the scientist mix easily. It's with the middle person that we both have trouble" (in 9 Evenings 1966a).

Who was this troublesome middle person? I think that the examples recounted above suggest that it was the musician, the one subjectivity that embodied the institutions of music in some way. In the examples surveyed above, professional artists—not only the "music hater," Rainer—cleaved music from professional musicians, often with the help of professional engineers. In so doing, they posed new questions of sound practice distinct from those of music's expert caste.

Andreas Huyssen argues that the innovations of the postdisciplinary 1960s had to originate in music, "a field which lacked the kind of avant-gardist dismantling of its institutional frame and inherent structures, which was ripe for the expansion of its sound material into what always had been considered simply non-musical" (1995:203). He is right, but not for the reasons he gives. As I mentioned, composers had been integrating the nonmusical for 40 years by the Judson period; and Huyssen may not have been aware of Schoenberg and Varèse's rejection of the bourgeois concert apparatus in the 1920s. But Huyssen is on to something, because of all the parts of the postwar avantgarde, music posed the problem of the amateur in the starkest of terms (see Bryan-Wilson and Piekut 2019). 12 Yes, the conceptual innovations often attributed to Cage were developed and extended in theatre, dance, sculpture, and film, as art historians have analyzed so adroitly. But none of these other disciplines faced a set of technological transformations as profound and wide as music. These transformations spanned every aspect of the production and reception of music, from elite to vernacular manifestations, and provided countless openings to nonexperts. The science of sound responsible for these technological transformations also supplied technical expertise for a new art of sound, thereby displacing music and the institutions that organized and embodied its knowledge. This reconfiguration of disciplinary relevance is what made the post-Cagean avantgarde distinctive, not the integration of previously nonmusical sound or the critique of concert hall presentation, and it alone explains why the critique of music during that decade could emerge from outside of music's institutions.

But why dance, specifically?¹³ Like theatre and film, it shared with music the property of duration; but more so than those other two forms, dance's history was intimately entwined with music. Nevertheless, as Sally Banes argued in an early and influential account (1987), modern dance gradually loosened its ties to music and asserted its autonomy, especially after Cunningham. They didn't want anybody else's high art near theirs: not only Rainer, but also Paxton, Forti, and others often proceeded with a complete negation of music by choreographing in silence—and I don't mean Cagean silence. I mean silence as the absence of any discipline other than dance and any medium other than movement. Trisha Brown avoided almost any musical accompaniment until 1981, save for those early squeaks from Forti, and Childs's productive burst of 1970s works are known, descriptively, as her "dances in silence."

This play of disciplinary autonomy and cross-disciplinary amateurism helps to clarify Judson's critique of the institution of art—not just the disciplinary critique of music or dance, but the general critique of the institution of art itself, outlined memorably by Peter Bürger in 1974. Postwar artists formulated their critiques of the bourgeois art institution largely in the terms of their own discipline. Painters investigated the social and economic support systems of the museum, sculptors

^{12.} I would never be thinking about amateurism were it not for Julia Bryan-Wilson's invitation to speak at the conference of that name, which she organized at UC Berkeley in 2018.

^{13.} I am inspired to examine dance's interactions with other disciplines and their institutions by the important work of Claire Bishop (2014) and ongoing exchanges with her on this subject.

Sound Against Music

expanded the site of their work beyond the gallery, film deconstructed the projection apparatus, and so on. The dancers, too, critiqued their discipline by incorporating everyday movements, tasks, and non-art sites of presentation. But by dispensing with musicians, they did something that they could never have accomplished in their own discipline—eliminating the artist—because it would have meant dispensing with themselves.

Cage faced this problem all the time, because the logical end of letting sounds be themselves was the elimination of his own role. (As Hannah Arendt wrote about Karl Marx, "such fundamental and flagrant contradictions rarely occur in second-rate writers" [1958:104–05].) Indeed, Cage spent the decade of the 1960s developing artistic practices that, as Benjamin Buchloh would write in an adjacent analysis, "explicitly insisted on being addressed outside of the parameters of the production of formally ordered, perceptual objects, and certainly outside of those of art history and criticism" (1990:105). And yet less than a year after Cage told Brian Eno that he preferred music "without notation" and "without rules," Cage began work on a piece that did the exact opposite (Cage 1968). Cunningham's plan to finish choreographing a dance to Satie's symphonic drama *Socrate*, a process he had begun in 1944, met complications when *Socrate*'s publisher denied performance rights for Cage's arrangements of the second and third movements. The composer responded by subjecting Satie's score to chance operations and recomposing a monophonic melody for piano that retained the original phrase structure, because, unlike every one of Cunningham's mature dances, this one would correspond to the rhythms of its accompaniment. Cage called the new work *Cheap Imitation*, and Cunningham titled his dance *Second Hand* (see Callahan 2018).

Once again, Satie provided a means of passage between sound and music music. Recall that Dunn's assignments using the French composer would instigate many of the Judson dancers' innovations in the first place. Satie's music—or their understanding of it, filtered through Dunn and Cage—took them beyond music and its institutions. For Cage in the late 1960s, Satie pointed in the other direction: *Cheap Imitation* possessed a conventional, titled score, designated an obvious author and executant, and promised an unproblematic repeatability across performances. In other words, *Cheap Imitation* was not only a knockoff of Satie's *Socrate* but also a kind of imitation of music music that one reaches only after having wandered in the direction of some other terrain that we might reasonably refer to as sound (see Piekut 2022).

While Cage persisted through this contradiction, the Judson generation could sidestep it by means of their cross-disciplinary traffic. Additionally, their appropriation of vernacular musics—we might call it "diagonal borrowing"—enabled them to critique the concept of elite art, albeit in a rather narrow way, because it freed them from having to engage with their own low forms of social or popular dance. I count this as another instance of vernacular music's unique importance for other artforms in the middle of the 20th century (see Piekut 2019:404–06; Levitz and Piekut 2020). In countless cases, music served as a kind of universal placeholder for the vernacular and, therefore, as the representative space where expertise, cultivated technique, or trained skills need not apply.

References

9 Evenings. 1966a. Notes from production meeting, 1 April. Getty Research Institute, Experiments in Art and Technology Papers, box 3, folder 2.

9 Evenings. 1966b. 9 Evenings: Theatre and Engineering program. Getty Research Institute, Experiments in Art and Technology Papers.

Anderson, Jack. 1999. "A Trinity of Anguish: Father, Son and Death." New York Times, 26 May. www.nytimes. com/1999/05/26/arts/dance-review-a-trinity-of-anguish-father-son-and-death.html

Arendt, Hannah. 1958. The Human Condition. University of Chicago Press.

Ballet Review. 1967. "Judson: A Discussion." Ballet Review 1, 6:30-53.

Banes, Sally. 1987. Terpsichore in Sneakers: Post-Modern Dance. Wesleyan University Press.

Banes, Sally. 1993. Democracy's Body: Judson Dance Theater, 1962–1964. Duke University Press.

Banes, Sally. 1994. "Dancing [with/to/before/on/in/over/after/against/away from/without] the Music: Vicissitudes of Collaboration in American Postmodern Choreography." In Writing Dancing in the Age of Postmodernism, 310–26. Wesleyan University Press.

Béar, Liza. 1975. "Barbara Dilley...in The Dancing Room." Avalanche 12:33-35.

Béar, Liza, and Willoughby Sharp. 1972. "Yvonne Rainer [interview]." Avalanche 5:47-59.

Bishop, Claire. 2014. "The Perils and Possibilities of Dance in the Museum: Tate, MoMA, and Whitney." *Dance Research Journal* 46, 3:62–76.

Breitwieser, Sabine, ed. 2015. Carolee Schneemann: Kinetic Painting. Museum der Moderne Salzburg.

Bryan-Wilson, Julia, and Benjamin Piekut. 2019. "Amateurism." *Third Text* 34, 1:1–21. doi.org/10.1080/095288 22.2019.1682812

Buchloh, Benjamin H.D. 1990. "Conceptual Art 1962–1969: From the Aesthetic of Administration to the Critique of Institutions." *October* 55:105–43. doi.org/10.2307/778941

Bürger, Peter. (1974) 1984. Theory of the Avant-Garde. Trans. Michael Shaw. University of Minnesota Press.

Burt, Ramsay. 2002. "Steve Paxton's *Goldberg Variations* and the Angel of History." *TDR* 46, 4 (T176):46–64. muse.jhu.edu/article/33163

Cage, John. 1949. "Forerunners of Modern Music." The Tiger's Eye 1, 7:52–56.

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

Cage, John. 1968. Letter to Brian Eno, 28 September. John Cage Correspondence, Northwestern University Music Library, box 9, folder 9.

Cage, John. 1991. "Defense of Satie." In John Cage: An Anthology, ed. Richard Kostelanetz, 77–84. Da Capo Press.

Callahan, Daniel M. 2018. "The Gay Divorce of Music and Dance: Choreomusicality and the Early Works of Cage-Cunningham." Journal of the American Musicological Society 71, 2:439–525. doi.org/10.1525/jams.2018. 71, 2, 439

Childs, Lucinda. 1975. "Notes: '64-'74." TDR 19, 1 (T65):33-36.

Connor, Steven. 2003. "The Help of Your Good Hands: Reports on Clapping." In The Auditory Culture Reader, ed. Michael Bull and Les Back, 67–76. Berg.

Crimp, Douglas. 2006. "Yvonne Rainer, Muciz Lover." Grey Room 22:48-67.

Dunaway, Judy. 2020. "The Forgotten 1979 MoMA Sound Art Exhibition." Resonance: The Journal of Sound and Culture 1, 1:25–46. doi.org/10.1525/res.2020.1.1.25

Duncan, Kathy. 1974a. "David Gordon." Soho Weekly News, 13 June.

Duncan, Kathy. 1974b. "Grand Union." Soho Weekly News, 13 June.

Dunn, Robert Ellis. 1972. "Pivot." Artforum, December.

Dunn, Robert Ellis. 1989. "Judson Days." Contact Quarterly 14, 1:9-13.

Farber, Viola. 1991–92. Interview with Rose Anne Thom (transcript). Dance Oral History Project, Jerome Robbins Dance Division, New York Public Library of the Performing Arts. *MGZMT 3–1839.

Forti, Simone. 1962. Trillium. Digital sound file provided by the Trisha Brown Archive.

Forti, Simone. 1974. Handbook in Motion. Press of the Nova Scotia College of Art and Design.

Forti, Simone. 1994. Interview with Louise Sunshine (transcript). Dance Oral History Project, Jerome Robbins Dance Division, New York Public Library of the Performing Arts, 8 May. *MGZMT 3–1844.

Foucault, Michel. 1980. Power/Knowledge: Selected Interviews and Other Writings, 1972–1977. Ed. Colin Gordon; trans. Colin Gordon, Leo Marshall, John Mepham, and Kate Soper. Pantheon.

Gertner, Jon. 2012. The Idea Factory: Bell Labs and the Great Age of American Innovation. Penguin Press.

Gillespie, Noel. 1974. "VI New Dance." Dance Magazine, August.

Grand Union. 1975. The '75 Album. Green Mountain Art Service.

Huyssen, Andreas. 1995. "Back to the Future: Fluxus in Context." In Twilight Memories: Marking Time in a Culture of Amnesia, 191–208. Routledge.

Jowitt, Deborah. 1977. "No One Knows How Souls Move." Village Voice, 14 November.

Jowitt, Deborah. 1987. "Public Rites, Private Ceremonies." Village Voice, 21 April.

Kim, Rebecca Young-Hie. 2008. "In No Uncertain Musical Terms: The Cultural Politics of John Cage's Indeterminacy." PhD diss., Columbia University.

Klüver, Billy. 1991. "Four Difficult Pieces." Art in America 79, 7:80-99, 138.

Kraus, Lisa. n.d. "Barbara Dilley on Yvonne Rainer and Grand Union." Typescript, Barbara Dilley papers, Jerome Robbins Dance Division, New York Public Library of the Performing Arts, box 2, folder 6.

Levitz, Tamara, and Benjamin Piekut. 2020. "The Vernacular Avant-garde: A Speculation." ASAP/J, 3 September. asapjournal.com/the-vernacular-avant-garde-a-speculation-tamara-levitz-and-benjamin-piekut/

Morse, Meredith. 2016. Soft Is Fast: Simone Forti in the 1960s and After. The MIT Press.

Morton, Jr., David Lindsay. 1995. "The History of Magnetic Recording in the United States, 1888–1978." PhD diss., Georgia Institute of Technology.

The New School. 1956. New School Bulletin 14, 1 (Fall).

Öhrner, Annika. 2007. "Recalling Pelican: On P.O. Ultvedt, Robert Rauschenberg and Two 'Ballets." Konsthistorisk tidskrift/Journal of Art History 76, 1–2:27–39.

Paxton, Steve. n.d. *Physical Things*. Getty Research Institute, Experiments in Art and Technology Papers, box 2B, folder 1.

Paxton, Steve. 1966. Interview with Simone Forti, 11 March. Getty Research Institute, Experiments in Art and Technology Papers, box 3, folder 1.

Paxton, Steve. 1983. Interview with Wendy Perron and Nancy Stark Smith [transcript]. The Judson Project, Jerome Robbins Dance Division, New York Public Library of the Performing Arts. *MGZMT 3–916.

Perron, Wendy. 2020. The Grand Union: Accidental Anarchists of Downtown Dance, 1970–1976. Wesleyan University Press.

Piekut, Benjamin. 2019. Henry Cow: The World Is a Problem. Duke University Press.

Piekut, Benjamin. 2021. "Anne Imhof in Three Acts, an Improvisation: Hunter, Writer, Lover." Flash Art, Spring:46–65.

Piekut, Benjamin. 2022. "The Afterlives of Indeterminacy." Contemporary Music Review 41, 2–3:310–27. doi.org/10.1080/07494467.2022.2080467

Post, Robert. 2009. "Debating Disciplinarity." Critical Inquiry 35, 4:749-72. doi.org/10.1086/599580

Rainer, Yvonne. 1960–62. Untitled notebook. Yvonne Rainer papers, Getty Research Institute, special collections, box 1 folder 2.

Rainer, Yvonne. 1963–65. Untitled notebook. Yvonne Rainer papers, Getty Research Institute, special collections, box 1, folder 6.

Rainer, Yvonne. 1969. Letter to Barbara Dilley, 3 December. Barbara Dilley papers, Jerome Robbins Dance Division, New York Public Library of the Performing Arts, box 1, folder 4.

Rainer, Yvonne. 1974. Work 1961-73. The Press of the Nova Scotia College of Art and Design.

Rainer, Yvonne. 1978. "Paxton Untitled." SoHo Weekly News, 16 November.

Rainer, Yvonne. 1997. Interview with Ann Daly (transcript), 9 December. Yvonne Rainer papers, Getty Research Institute, special collections, box 14, folder 15.

Rainer, Yvonne. 2023. Email correspondence with author, 29 October.

- Robinson, Robby. n.d. "What Really Happened at the Armory." Getty Research Institute, Experiments in Art and Technology Papers, box 2B, folder 4.
- Ross, Janice. 2009. Anna Halprin: Experience as Dance. University of California Press.
- Schneider, Herb. n.d.a. "A Glimpse or more at some Technical Aspects Not Seen by the Third Partner of Nine Evenings—The Public." Manuscript, Getty Research Institute, Experiments in Art and Technology Papers, box 2B, folder 2.
- Schneider, Herb. n.d.b. "A Systems Approach to Robert Rauschenberg's *Open Score.*" Getty Research Institute, Experiments in Art and Technology Papers, box 1, folder 8.
- Verdin, Walter. 2016. Goldberg Variations. DVD. KAAI Theater, Netherlands. Performances recorded in 1992.
- [Wolff, Dick?]. 1966. Notes on July 14 meeting. Getty Research Institute, Experiments in Art and Technology Papers, box 2B, folder 1.

TDReadings

- Burt, Ramsay. 2002. "Steve Paxton's *Goldberg Variations* and the Angel of History." *TDR* 46, 4 (T176):46–64. doi.org/10.1162/105420402320907010
- Cage, John, Michael Kirby, and Richard Schechner. 1965. "An Interview with John Cage." TDR 10, 2 (T34): 50–72. doi.org/10.2307/1125231
- Festa, Kay. 2015. "More than Meets the Ear: An Account of the Shared (Ac)counts of Cage and Stravinsky." TDR 59, 2 (T226):92–102. doi.org/10.1162/DRAM_a_00451
- Paxton, Steve. 1972. "The Grand Union." The Drama Review 16, 3:128-34. doi:10.2307/1144779
- Rainer, Yvonne. 1965. "Some retrospective notes on a dance for 10 people and 12 mattresses called 'Parts of Some Sextets,' performed at the Wadsworth Atheneum, Hartford, Connecticut, and Judson Memorial Church, New York, in March, 1965." *Tulane Drama Review* 10, 2:168–78. doi:10.2307/1125242