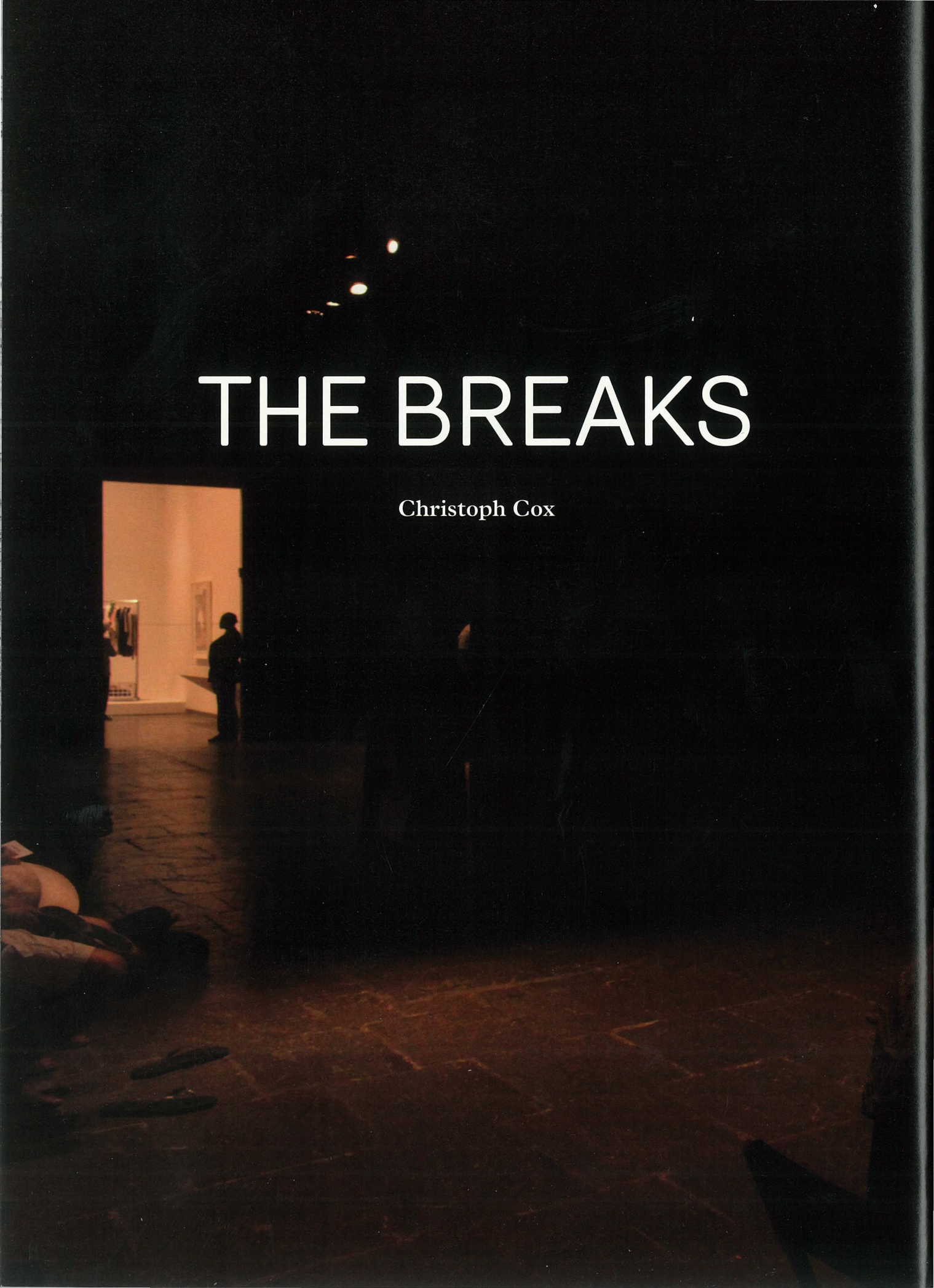


THE BREAKS

Christoph Cox

PHOTOGRAPH © PAULA COURT

The Bell and the Glass, 2003. Installation view at the Whitney Museum of American Art, New York.

In the early 1920s, the artist-polymath László Moholy-Nagy published a pair of articles proposing novel uses for the phonograph.[1] In its nearly half-century of existence, Moholy-Nagy noted, the phonograph had thus far been used only as an apparatus of reproduction, a machine that played recorded music and speech. Yet it could readily be transformed into an apparatus of production, an instrument for making music, or what Moholy-Nagy more broadly termed "sound effects." The surface of the record, he suggested, could be hand-cut to generate "hitherto unknown sounds and tonal relations." Graphic designs might be laid into wax to create what he called a "groove-manuscript score." Such innovations, Moholy-Nagy thought, would allow the composer to avoid the detour of musical notation and its subsequent interpretation by musicians, and would instead reestablish a direct, amateur experimentation with sound.

It took decades for artists to begin following these suggestions and to realize what Moholy-Nagy had fundamentally grasped: that the advent of the phonograph marked a key turning point in the history of music and sound. Indeed, it was part of a fundamental shift in worldview manifested not only in music and art but also in philosophy, science, and beyond.

From his early experiments with records and turntables through his recent photographic, video, and graphic scores, Christian Marclay has placed himself at this musical and conceptual juncture and has richly explored its sonic and social repercussions. Marclay's work is always clever, direct, and accessible, making creative connections and drawing new possibilities from the detritus of mass culture. Yet it also offers a rigorous historical, conceptual, and material investigation into the history of audio recording and the fate of music and sound after the twilight of the musical work. Before highlighting some of Marclay's key interventions, I want briefly to rehearse this history.

* * *

Sound is a fluid and ephemeral substance that inherently resists efforts to capture it and to forestall its inevitable dissolution and passage. For most of human history, biological and communal memory were the only available mechanisms for the capture—the "recording"—of music.[2] While fundamentally traditional and aimed at the preservation of ancestral culture, folk forms of transmission inevitably involved variant repetition and minor innovations that were amplified and passed on, ensuring that the song had no fixed or singular identity but was always in flux. Likewise, this sonic flux was essentially anonymous, authored not by a creative individual but by the entire community and its lineage.

A second mode of sound recording, musical notation, was introduced to Europe in the late Middle Ages as a supplement to memory, an *aide-mémoire* for accomplished musicians faced with complex polyvocal music. With the rise of capitalism, the written score was enlisted as the means by which to reify and commodify the ephemeral material of music. No longer the fluid production of communal authorship, the musical work became a fixed entity that was the intellectual property of an individual composer. Once merely a supplement to the sonic flux of the song, the musical score came to be, for legal and economic purposes, the musical work itself. The musical work thus paradoxically became an inaudible, mute object; and musical attention was shifted from the ear to the eye. Requiring a new form of literacy, music became the province of a specialist class.

Folk music continued to operate via oral-aural transmission. In the art-music context, however, the musical score served as the dominant means of musical recording and transmission from the sixteenth century until well into the twentieth. It was the invention of the phonograph in 1877 that eventually challenged this hegemony of the visual score and inaugurated a new era. The phonograph record was able to diminish the distance between the visual score and its auditory performance. Where the score provided only a blueprint for skilled musicians to realize a musical work, the phonograph record could deliver actual performances and, to do so, required not a skilled performer but only a machine. Short-circuiting the literate culture of the score, the phonograph record could register performances of all sorts—operas and symphonies, but also folk songs and Tin Pan Alley numbers. Moreover, where the musical score was restricted to the recording of discrete pitches in a limited range, the phonograph could record and play back the entire audible universe.

An exchangeable container of music, the phonograph record intensified the reification of music that began with the score. Yet it also opened up the possibility of undoing this reification and restoring the essential fluidity of sound. As Moholy-Nagy suggested in the early 1920s, the phonograph was capable of becoming more than merely a technology of recording and representation. It could also become an instrument for musical composition and improvisation. In the '20s and '30s, composers such as Stefan Wolpe, Paul Hindemith, Ernst Toch, and John Cage experimented with phonograph recordings in compositions and performances.[3] But the use of recorded sound did not become a prominent compositional tool until 1948, when French radio engineer Pierre Schaeffer broadcast a set of "noise studies" built entirely from recordings—not only of musical instruments but of worldly sources such as pots, pans, and railroad trains. In the years that followed, Schaeffer's Paris studio became a hive of experimental musical activity, attracting a who's who of the European avant-garde.

It's not coincidental that, at precisely this historical moment, the musical score began to fragment and dissolve. The score for Karlheinz Stockhausen's *Klavierstück XI* (1956), for example, consists of a large sheet of paper displaying nineteen musical passages among which the performer is invited to move at random. Similarly, the first section of Pierre Boulez's

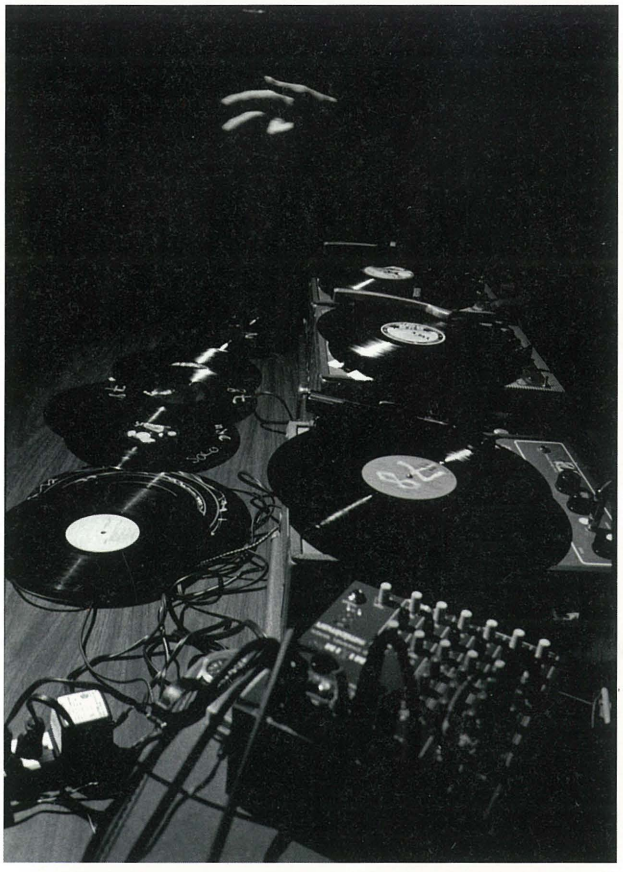
Third Sonata for Piano (1958) is a collection of ten pages that can be arranged in any order. More radical still is the score for Earle Brown's *December 1952* (1952), a white page sparsely sprinkled with an array of black bars of various lengths and widths. In his terse instructions, Brown remarks that the score can be read from any direction, performed by any instruments, and played for any length of time.[4]

December 1952 still looks vaguely like a traditional musical score, but one that has been largely erased. (It thus anticipates the *Erased De Kooning Drawing* produced by Brown's friend Robert Rauschenberg the following year.) Yet it also resembles the modernist drawings and paintings of Piet Mondrian and Paul Klee. These correspondences between visual art and the musical score were celebrated by the Polish-born composer Roman Haubenstock-Ramati, who suggested that any abstract picture could be treated as a musical score.[5] It was Haubenstock-Ramati who famously praised the pianist David Tudor for his astonishing ability to realize experimental scores, quipping that Tudor "could play the raisins in a slice of fruitcake."[6] The comment was made in jest; but it proved prescient, as Fluxus artists and other experimental composers began to treat all sorts of objects and events as provocations for sonic production.

Haubenstock-Ramati's own prodigious output of "graphic scores" is clearly indebted to the paintings of Vasily Kandinsky, whose canvases (many of them titled "Composition" or "Improvisation") aspired to the condition of music. Indeed, like many early modernist composers and painters, Kandinsky hoped that his paintings would approximate the neurological condition of synaesthesia, in which different sensory modalities merge to form a common experience. In the age of digital media and intensive neurological research, synaesthesia has once again become a frequent buzzword in the arts and sciences.[7] The graphic score, however, fundamentally resists this synaesthetic condition. Instead of merging the visual and the sonic, the graphic score pries them apart. Where the traditional musical score aims at a one-to-one correspondence between visual symbols and musical tones, the graphic score denies such correspondence. Hence, faithful performances of Brown's *December 1952*, Haubenstock-Ramati's *Batterie* (1969), or Cornelius Cardew's *Treatise* (1963–67), for example, generally bear no audible similarity to one another. With the graphic score, then, the visual and audible content of music diverge, becoming two parallel streams.

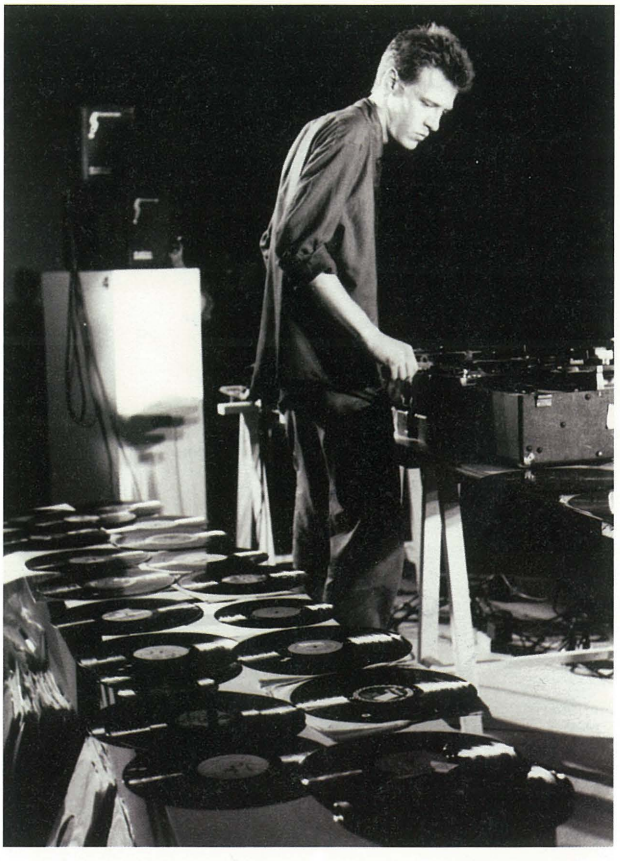
* * *

This experience of divergence is, indeed, a general characteristic of our contemporary intellectual condition, of which music is a microcosm.[8] The traditional musical score emerged alongside the classical physical theories of the sixteenth and seventeenth centuries, which construed the universe as a closed system governed by deterministic mechanical laws and set into operation by a transcendent



PHOTOGRAPH © PAULA COURT

Performance of *djTRIO*, 1998, at the Whitney Museum of American Art at Philip Morris, New York.



PHOTOGRAPH BY ANA NASS

Christian Marclay performing at the Metronome, Barcelona, May 1985.

Christian Marclay with Nicolas Collins, Perry Hoberman, Jazzy Joyce, and Otomo Yoshihide performing *One Hundred Turntables*, May 24–25, 1991, at Panasonic National Hall, Tokyo.

creator. From such an external position, the world was present all at once; and the experience of time was only an illusion experienced by immanent entities such as human beings, who were denied a God's-eye view of the whole. The classic musical score mirrors this physical structure. A fixed, bounded totality (the score) is produced by a creator outside of it (the composer) to be executed by musicians who faithfully carry out its predetermined program.

In the mid-nineteenth century, the dominance of deterministic physics was challenged by evolutionary biology, which denied the necessity of a transcendent creator and figured the world as an open system that was irreducibly temporal. Biological species were no longer taken to be fixed types produced in advance; rather, they were seen as the contingent products of countless historical events and processes that could not have been foreseen. In the biological domain, there is no identity. No two individuals are alike; and biological reproduction proceeds not by repetition or replication but by variation, mutation, differentiation, and divergence. For evolutionary biology, then, time is real, and past and future are asymmetrical.

The avant-garde and experimental music of the past half century has resolutely explored these temporal processes of difference and divergence. Indeterminate compositions and graphic scores were just the beginning. John Cage's employment of chance procedures shunned the ordinary musical "time-object" in favor of compositions that "imitated nature in her manner of operation," which meant following "a process essentially purposeless."[9] Iannis Xenakis modeled his musical compositions on stochastic processes such as "the collision of hail or rain with hard surfaces, or the song of cicadas in a summer field."[10] The "event scores" of Fluxus figures such as George Brecht, Yoko Ono, and La Monte Young simply provided provocative verbal prompts for action and could be realized in any number of ways. Ornette Coleman, Derek Bailey, and Musica Elettronica Viva inaugurated practices of free improvisation that dispensed with the score in favor of in-the-moment decision-making and responses to the sounds of fellow musicians.

Cage described as "experimental" "an action the outcome of which is not forseen"[11]; and, indeed, so much experimental music simply provides a set of initial conditions from which performances then ramify and diverge. This is manifested quite literally in Steve Reich's early tape works *It's Gonna Rain* (1965) and *Come Out* (1966), in which two tape recorders playing the same vocal fragment gradually go out of phase, generating interlocking patterns of extraordinary complexity. So much computer-driven "generative music" celebrates the spontaneous eruption of emergent properties through feedback loops.[12] And DJ culture treats the whole history of recorded music as an archive of fragments to be endlessly sampled, mixed, and remixed. All these modes of music-making, then, affirm a fundamentally complex, open, temporal, and indeterminate world.

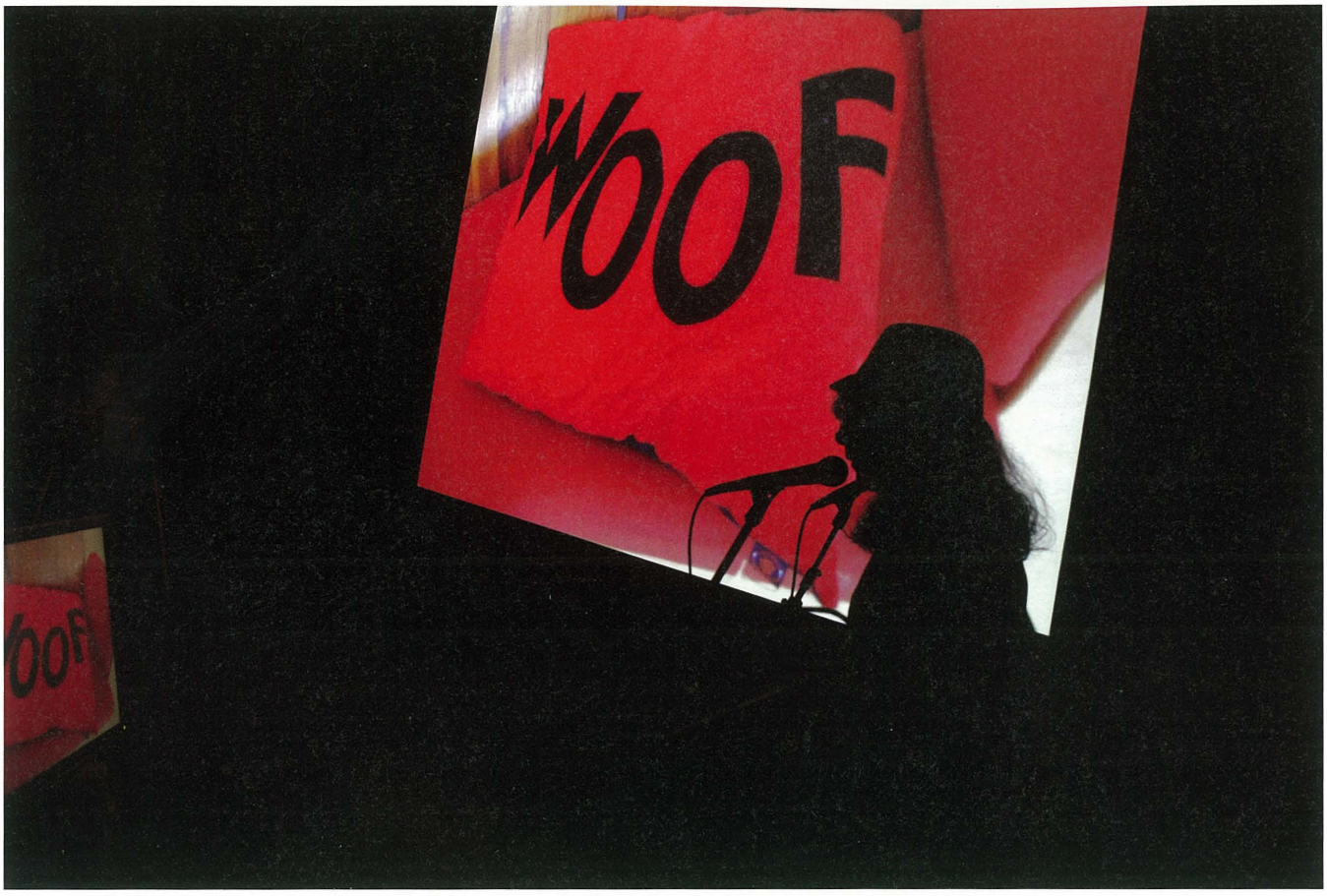
* * *

Christian Marclay's work richly references and extends this history. It affirms the historical rupture through which the musical score gave way to audio recording, and celebrates the temporal, conceptual, and sensory divergence that characterizes our contemporary condition. Marclay's first move was to activate the turntable and the record. Beginning in 1979, working independently from hip-hop DJs such as Kool Herc, Grandmaster Flash, and Grand Wizard Theodore who were undertaking similar experiments at the time, Marclay transformed the turntable into a musical instrument and treated the record not as a finished product to be passively consumed but as raw material for creative manipulation.

Like any commodity, a record is what Karl Marx called "dead labor," the congealed residue of human activity.[13] The ordinary commodity disavows or dissimulates this essence; but the phonograph record makes it peculiarly manifest. The sonic remains of past events and bodies no longer living are dug into its grooves, inscribed in a petroleum byproduct that materially consists of fossilized organic matter. The turntable momentarily revives these events and voices, but always retrospectively, as a remembrance of things past. A record collection, then, is a mausoleum that testifies both to the fixity and the fragility of the past. Within this context, Marclay's turntablism performs a temporal inversion. His "recycled records" (LPs cut into pieces and reassembled in new configurations) reorganize the linearity of auditory history; and his multi-turntable collages and improvisations cast the fixed past into an uncertain future.[14]

In 1985, Marclay embalmed a set of his own turntable performances on a commercial LP. This would have been a paradoxical and contradictory move, were it not for the disc's title, *Record Without a Cover*, and an instruction engraved on one of its sides: "Do not store in a protective package." Without such protection, the records would inevitably pick up scratches and attract dust and debris. What began as all-but-identical, mass-produced objects would slowly diverge from one another, becoming unique works of art via the accumulated traces of their singular and contingent trajectories. Marclay thus submitted the prefab world of Andy Warhol's Campbell's Soup cans to Steve Reich's tape-phase procedure, allowing time, chance, and the vicissitudes of commodity circulation to "improvise," adding sonic material to his own and producing results that he could not have foreseen in advance.[15]

A more recent project, *Mixed Reviews* (1999–2010), also celebrates this divergence, in this case via metaphorical leaps across the gaps that separate sound, text, and image. Vivid and bombastic sentences pulled from music reviews—efforts to translate musical experience into language—are strung together to form a horizontal wall text that cuts across the exhibition space. Each installation of the piece translates the text into the local language, increasing the distance between musical referent and linguistic sign. In a video version, *Mixed Reviews (American Sign Language)* (2001), a deaf actor



PHOTOGRAPH © PAULA COURT

Shelley Hirsch performing *Zoom Zoom*, July 17, 2010, at the Whitney Museum of American Art, New York.

renders the text as a flow of wildly expressive bodily gestures. The circuitous course of translation—from sound to texts in multiple languages to gestural signs on video—operates like the game of "telephone," insuring that the output will diverge substantially from the input. Even so, the text fires the aural imagination, provoking a silent experience that is nonetheless intensely musical. The video is likewise silent; but the actor's hands, arms, and face powerfully capture the physicality of sound, the waves and forces it releases and their social trajectories.

These projects are not evidence of some nostalgia for lost unity, nor are they commentaries on the incapacities or disabilities of various media. Rather, they are testaments to the generative powers of difference and translation. Forestalling the stultifying collapse of the senses and media into identity or unity and the conformist fantasy of perfect correspondence, they celebrate ingenious leaps between sensory modalities and media that produce genuine novelty. Perfect replication, we know from biology, would be a recipe for death and extinction. Life and creativity thrive on mutation, variation, and divergence.

* * *

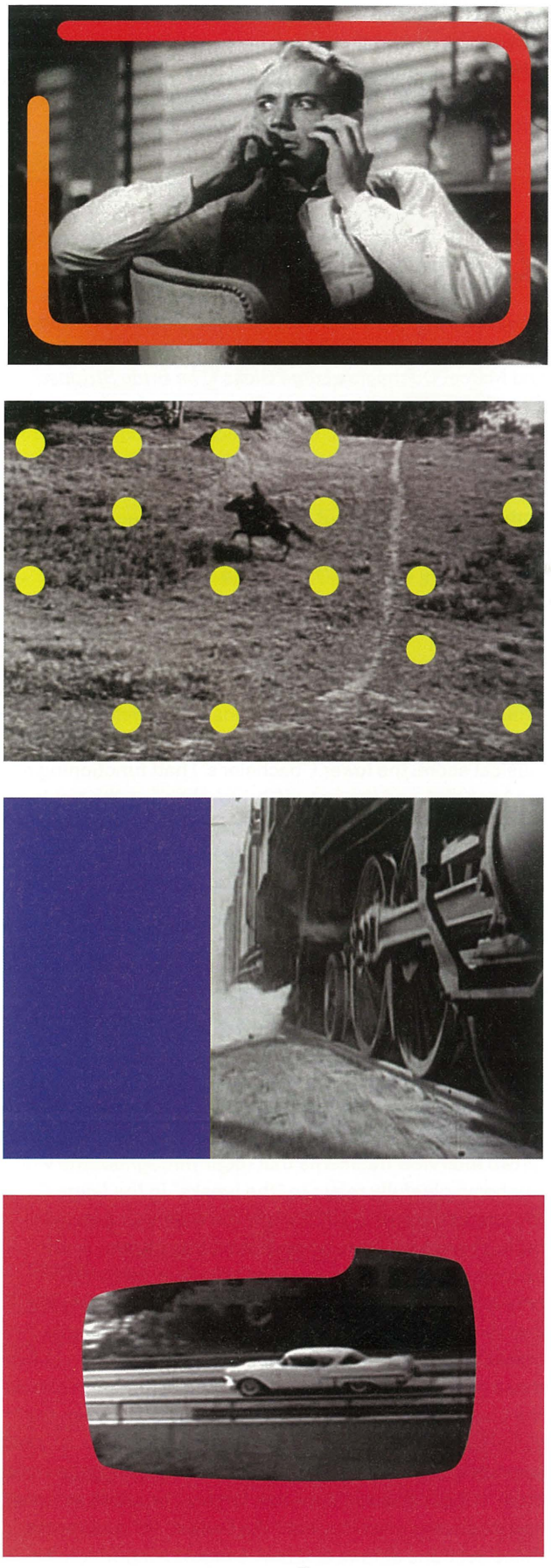
Such leaps and divergences are actively cultivated by the series of photographic and video scores Marclay has produced over the past fifteen years. *Graffiti Composition* (1996) and *Shuffle* (2007), for example, are decks of photographs to be used as musical scores. Where the earlier piece documents anonymous scribbles on blank score sheets, *Shuffle* collects fragments of conventional musical notation from street signs, clothing, awnings, umbrellas, tattoos, and bric-a-brac of all sorts. They may be intended as mere decoration, signifiers of "music" in general, but Marclay takes these found objects seriously. The collection as a whole combines the Duchampian readymade with Stockhausen's *Klavierstück XI* to create a musical score of endless permutation. As in *Graffiti Composition*, anonymity plays a key role here, though in *Shuffle* it's the anonymity of a vast cadre of designers who go unnamed and uncredited in the visual culture of modern life. Marclay's photographs, then, are a form of sampling—not of musical sound, oddly, but of its visual representation. Photography and phonography approach one another and generate sparks across the divide.

Closely linked with these projects are two others, *Zoom Zoom* (2008) and *Manga Scroll* (2010), both of which employ onomatopoeia, that curious effort of language to imitate worldly sounds. Onomatopoeia attempts to circumvent the

semantic content (the signified) that generally stands between the signifier and its referent—an effort by the word not just to *represent* the referent but to *be* it. Yet onomatopoeias turn out to be conventional signs, not natural ones, and, moreover, signs that are culturally specific. (We say "chirp"; the Spaniard says "pio." We say "cock-a-doodle-do"; the Italian says "chicchirichi.") What's more, Marclay's onomatopoeias are textual and visual, not spoken or sonic: *Zoom Zoom* is a photographic compendium of onomatopoeias found on banners, trucks, champagne bottles, candy wrappers, and elsewhere; *Manga Scroll* is a string of onomatopoeias lifted from English versions of Japanese comic books. Composed for a solo vocalist, both pieces ask the performer to undertake a roundabout translation: not to imitate sounds but to use their voices to re-sonify graphisms that vainly attempt to mimic the noises of the world. This proliferation of translations and leaps across various domains becomes dizzying when we consider that *Manga Scroll* pays tribute to composer-vocalist Cathy Berberian's *Stripsody* (1966), which itself alludes to *Blam* (1962), *Whaam!* (1963), and other early paintings by Roy Lichtenstein—making Marclay's piece a deferred and circuitous response to Haubenstock-Ramati's suggestion that any painting might be treated as a graphic score.

Beginning with the early turntable compositions and improvisations, Marclay's work has always followed the logic of sampling and the remix, generating new material from old, insisting that every work is a remix that is itself perpetually open to remixing. Marclay's visual scores intensify this trajectory. In the case of these works, remixing takes place not merely in a single medium—from records to records, films to films—but across media—from photographs and films to musical performances. Furthermore, like any graphic score, they are structurally incomplete. As Umberto Eco put it in an early essay on musical indeterminacy, "they are quite literally 'unfinished': the author seems to hand them on to the performer more or less like components of a construction kit."[16]

Screen Play (2005) provides a rich example. A thirty-minute montage of short clips from black-and-white films (home movies, adventure films, westerns, documentaries, educational films, etc.) periodically overlaid with simple graphic elements (colored lines, dots, staves, and wipes), *Screen Play* begins with the basic instruction: "To be interpreted by a small group of musicians." But how to interpret the score? The intermittent overlay of musical staves and visual metonymies suggests that the video might be read purely formally, the placement and movement of objects on the screen taken as indications of pitch, duration, or rhythm. Yet the abundant visual cues of sonic events (crashing waves, footsteps, fireworks, and the like) seem to direct performers to become foley artists whose aim is to supply the missing audio. More loosely, performers might simply compose or improvise a soundtrack, following the general movement and mood of the visual flow. Any or



Stills from *Screen Play*, 2005. Single-channel video projection, black and white with color, silent; 29 min.

all of these strategies is possible; and, in order to amplify differences among them, Marclay generally programs three different ensembles to play the score on any given occasion. Each time, the film is given a different soundtrack, which, in turn, produces a different film.[17]

* * *

All these elements and interests come together in Marclay's masterpiece, *The Bell and the Glass* (2003). At once a stand-alone work of art and a visual score, this double-screen video projection presents the unlikely conjunction of two objects: the Liberty Bell and Marcel Duchamp's *Large Glass (The Bride Stripped Bare By Her Bachelors, Even)*. The two screens function like the turntablist's two decks, mechanisms through which fragments of all sorts are drawn into a mix. Discs, spirals, rotating drums, pulsing dots, and phonographs appear on both screens throughout the video, references no doubt to the rotating objects and devices in the lower ("bachelor's") section of the *Large Glass*, but also visual allusions to Marclay's turntablist practice, which he launched in the late 1970s in a band with the Duchampian name: The Bachelors, even.

Arranged vertically, the two screens in *The Bell and the Glass* also operate as the symmetrical staves of the traditional musical score: the lower ("bachelor's") half functioning as the bass clef, and the upper ("bride's") half as the treble. Instances of musical notation (three interviews with Duchamp that Marclay transcribed into staff notation; Duchamp's chance composition *Erratum Musical*; and a collection of songs celebrating the Liberty Bell) appear throughout the video in the manner of *Shuffle*, as found musical material to be read by musicians. Indeed, the entire video is conceived as a graphic score, all its visual elements (images, texts, score fragments, etc.) aimed at provoking musical accompaniment to the video's existing sonic elements (Duchamp's voice; the ringing of souvenir Liberty Bells; overlaid string passages, etc.).

In two interview fragments that recur throughout the video, Duchamp gleefully refers to "the breaks" in the *Large Glass*, the cracks caused in 1926 when the work was damaged during transport. Marclay keys in on this phrase, which becomes an organizing figure of his video, referring not only to the *Glass*, but also to the crack in the Liberty Bell that rendered it at once iconic and mute. More broadly, "the breaks" signifies the connection and disconnection between these two objects, the conjunction and disjunction between the visual and the sonic, and, by extension, between the visual cuts of cinematic montage and the auditory cuts of the turntablist's art, which—from disco, dub, and hip-hop through drum 'n' bass and dubstep—has largely consisted in isolating and extending what DJs call "the breaks" or "breakbeats," those sections of funk and rock songs during which the melody instruments drop out and the bass and drums come to the fore.

"The break," then, is the cut, line, or bar that both conjoins and disjoins the two terms of an opposition: bride and bachelor, bell and glass, sound and image, phonography and photography, mass culture and high art, staff notation and graphic score. It is also, for Duchamp and Marclay alike, the caesura between past and future, between what the artist puts into the work and its indeterminate destiny. Reflecting on the accidental cracks in the *Glass*, Duchamp remarks, "I like the breaks [. . . .] There's almost an intention there [. . .], a curious intention that I'm not responsible for, a readymade intention, in other words, that I respect and love." For it is his principle, he says elsewhere in the video, "to accept any *malheur* as it comes." This openness to chance, accident, and any eventuality whatsoever defines the work of Duchamp and Cage, a lineage that Marclay makes his own. From his turntablist practice through his graphic scores, Marclay takes the readymade object as raw material for the generation of new work and affirms this fate of his own work as well, acknowledging that nothing remains fixed, that the future will always diverge from the past, and that, well, those are the breaks.

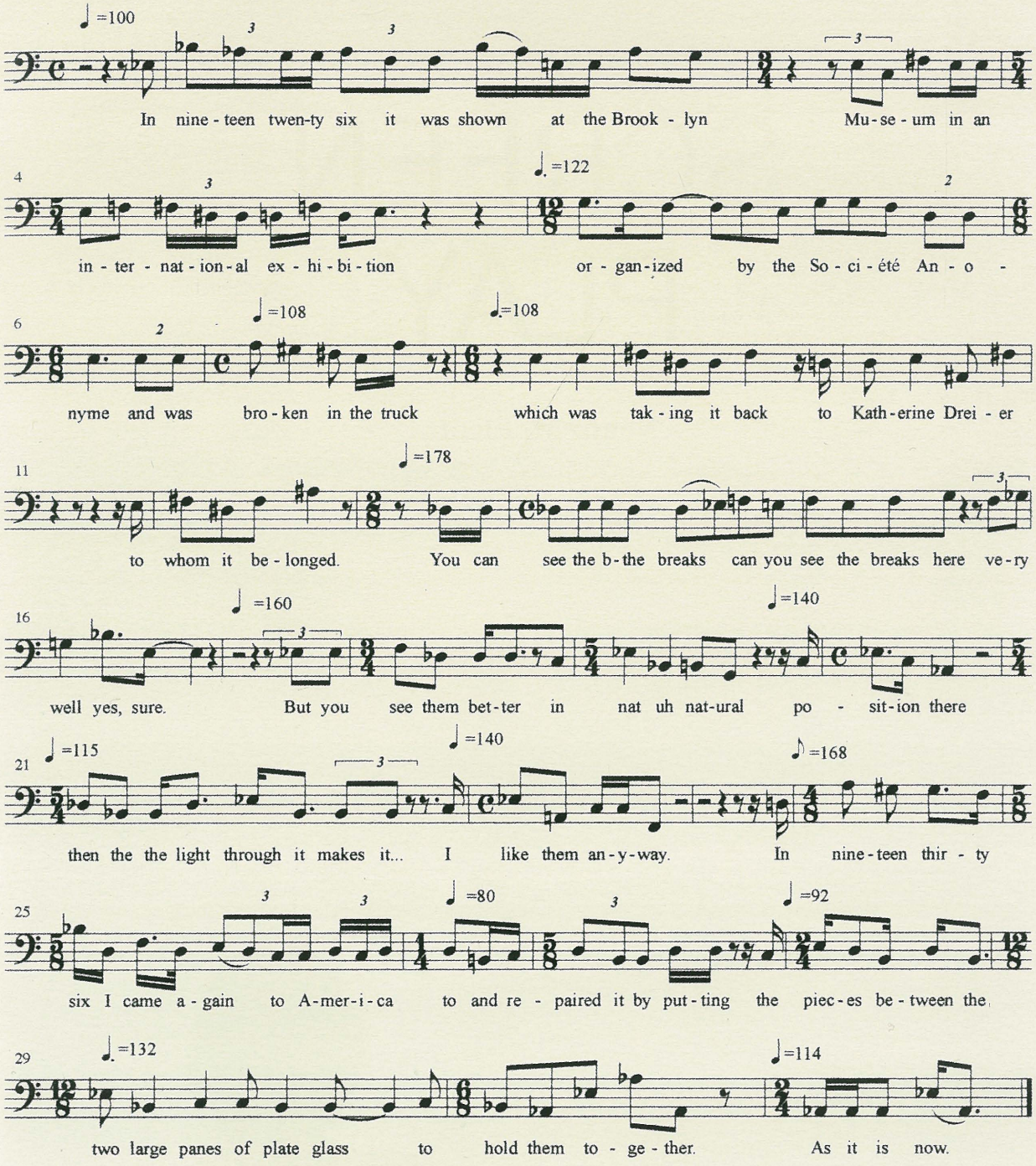
Christoph Cox is Professor of Philosophy at Hampshire College and a faculty member at the Center for Curatorial Studies, Bard College.

ENDNOTES

1 László Moholy-Nagy, "Production–Reproduction" (1922) and "New Form in Music: Potentialities of the Phonograph" (1923), *Moholy-Nagy*, ed. Krisztina Passuth (London: Thames & Hudson, 1985), pp. 289-90, 291-92. Excerpted in *Audio Culture: Readings in Modern Music*, ed. Christoph Cox and Daniel Warner (New York: Continuum, 2004), pp. 331-33.
2 My capsule history of audio recording draws substantially from Chris Cutler's helpful essay "Necessity and Choice in Musical Forms," *File Under Popular: Theoretical and Critical Writings on Music* (New York: Autonomedia, 1993), pp. 20–38.
3 The history of these experiments is helpfully chronicled in Cutler's "Plunderphonia," *Audio Culture*, pp. 138-56.
4 Earle Brown, *Folio (1952–3) and 4 Systems* (1954) (New York: Associated Music Publishers, 1961).
5 Roman Haubenstock-Ramati, "Music and Abstract Art: Remarks on 'Constellations'" (1971), *Konstellationen* (Vienna: Galerie Ariadne, no date).
6 Quoted in John Holzaepfel, liner notes to *David Tudor and Gordon Mumma* (New World Records, 2006).
7 See my "Lost in Translation: Sound in the Discourse of Synaesthesia," *Artforum* (October 2005): 236–41.
8 For different but related accounts of this correspondence between music and science, see Umberto Eco, "Poetics of the Open Work" (1959), *The Open Work*, trans. Anna Cancogni (Cambridge, MA: Harvard University Press, 1989), pp. 1–23, and Brian Eno, "Generating and Organizing Variety in the Arts," *Studio International* (Nov./Dec. 1976): 279-83. Both essays are reprinted in *Audio Culture*. My scientific account is also indebted to Ilya Prigogine and Isabelle Stengers' *Order Out of Chaos* (New York: Bantam Books, 1984) and Prigogine's *The End of Certainty* (New York: The Free Press, 1997).
9 See Cage, "Composition as Process: Indeterminacy," in *Silence: Lectures and Writings by John Cage* (Hanover, NH: Wesleyan University Press, University Press of New England, 1961), pp. 35–40, and the introduction to *Themes & Variations* (Barrytown, NY: Station Hill Press, 1982), both reprinted in *Audio Culture*.
10 Iannis Xenakis, *Formalized Music: Thought and Mathematics in Composition* (Bloomington: Indiana University Press, 1971), p. 9.
11 Cage, "History of Experimental Music in the United States," *Silence*, p. 69.
12 For a helpful overview, see David Toop, "The Generation Game: Experimental Music and Digital Culture," *Audio Culture*, pp. 239–47.
13 Karl Marx, *Capital*, Volume 1, trans. Ernest Mandel (New York: Penguin, 1990), 322, 342, and passim.
14 "[R]ecorded sound is dead sound, in the sense that it's not 'live' anymore," Marclay once told an interviewer. "The music is embalmed. I'm trying to bring it back to life through my art." Quoted in *Audio Culture*, p. 327.
15 For an exhibition at Exit Art in 2001, Marclay produced a companion piece to *Record Without a Cover*: a wall grid of 200 record covers, all copies of Herb Alpert's *Whipped Cream and Other Delights*. Another variation on Warhol, the display revealed not only production differences among the various copies but also differences due to wear and tear. See Christian Marclay, "The Inner Sleeve," *The Wire* 308 (October 2009): 77.
16 Eco, "Poetics of the Open Work," p. 4.
17 See "Conversation Between Christian Marclay and David Toop," *Arcana III: Musicians on Music*, ed. John Zorn (New York: Hip's Road, 2008), p. 144.

THE BREAKS

Marcel Duchamp lecturing at City Art Museum, St. Louis, 1964.



The Breaks, 2003. One of three scores from *The Bell and the Glass*, published in *The Bell and the Glass* (Philadelphia: Philadelphia Museum of Art/ Relâche, 2003).