The Diagram Dematerialized, from Marcel Duchamp to John Cage to George Brecht

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The event scores of American Fluxus artist George Brecht are minimal and enigmatic, meant to be interpreted and enacted by a viewer according only to the limits of the imagination. Whether imperative or merely propositional, Brecht's scores always position objects and actions in spatial and temporal relationships, and they are open and generative, embodying the potential for an immense range of actions to take place in their wake. These qualities of the event score—the arrangement of spatial and temporal relationships, the call to the beholder's imagination, and its infinite potentiality—seem to belong to the order of the diagram, and thus connect Brecht's work to an entire history of avant-garde engagements with a diagram model that we are only beginning to recognize. Printed modestly on white cards, Brecht sent his event scores to friends through the mail, included them in Fluxus publications, and published them in various editions as *Water Yam*, a collection of event score cards in loose arrangement (Figure 1).[1] Following Brecht's experiments, the event score became a popular format with Fluxus artists, being adopted by such figures as George Maciunas, Yoko Ono, and Dick Higgins. This practice was Brecht's most important contribution to Fluxus, an artistic movement deeply committed to reinvigorating aesthetic pleasure within the quotidian.

Brecht's oft-enacted piece *Drip Music (Drip Event)* is an exemplary event score.

> *DRIP MUSIC* (DRIP EVENT)
>
> For single or multiple performance.
>
> A source of dripping water and an empty vessel are arranged so that the water falls into the vessel.
>
> Second version: Dripping
>
> G. Brecht (1959 – 1962)[2]

When discovered by Fluxus ringleader George Maciunas, *Drip Music* was immediately incorporated into the repertoire of Fluxus events. It appeared in the premiere Fluxus concert in Wiesbaden, Germany, in September, 1962, and remained on the program as it traveled to Copenhagen, Paris, Düsseldorf, and Amsterdam.[3] In Copenhagen, Higgins stood atop a wooden ladder and poured water in a slight arc from a small watering can into an aluminum tub on the ground. In Amsterdam, Maciunas held a clear bottle in one hand, releasing a slight stream into a shallow tin at his feet. Brecht performed the piece himself at a concert of happenings in April, 1963, at Rutgers University, where he bent over halfway to pour water from a curvaceous white pitcher into a white teacup on the floor below (Figure 2). He made several sculptures from the score, including a 1966 version in which he secured a burette over an opaque bottle.

How can we understand the translation of Brecht's *Drip Music* into its myriad outcomes as performance and sculpture? The actors, "a source of dripping water and an empty vessel," are set into motion by relational and temporal parameters. The score suggests a spatial relationship with the prepositional phrase "into the vessel" and a time-enfolding process by "water falls." These relationships proposed by the score are brought to life by an interpreter, through performance or an arrangement of objects. Presenting a situation in which very little is prescribed, *Drip Music*, as we have seen, is open to varied and endless interpretations; and so we have Higgins spilling water from atop a ladder alongside Brecht's kinetic, dripping sculptures. More advanced performers might heed the score's "Second version: Dripping," which implies but does not name the agents involved: a liquid, the receptacle from which it escapes, and the surface it hits. Despite the minimalism of version two, a temporal and relational structure is evident just as in the first. Like a diagram, the score for *Drip Music* lays out a set of spatial and temporal relationships that, while to an extent specifically delineated, invite infinite creative interpretations. The score calls the viewer to recreate it again and again, to flesh out a

[1] My description of *Water Yam* is based on a first-edition box held in the Jean Brown Papers, Research Library, The Getty Research Institute, Los Angeles. The box is cardboard and designed like a large, sliding matchbox of 15 x 17.3 x 4.6 cm. It contains 73 scores. The Jean Brown Papers include four copies of *Water Yam* in total, three from 1963 and one later 1972 reprint by the English publisher Parrot Impressions. The 1963 copies are all in different types of boxes—cardboard, masonite, and wood—and hold slightly different numbers of scores: 73, 79, and 91 respectively. It is certain that the number of scores differs from printing to printing, and it is possible that there are slight differences in the number of scores contained in different *Water Yam* boxes of the same edition.

[2] The January 1962 date refers to when the score was first printed on a card in the manner of those included in *Water Yam*.

[3] For an account of the early European Fluxus concerts, see Owen Smith, "Developing a Fluxable Forum: Early Performance and Publishing," in Ken Friedman, ed. *The Fluxus Reader* (Chichester, West Sussex: Academy Editions, 1998).

landscape of inextinguishable possibility. Long considered a neo-avant-garde approach to the Dada readymade, wherein the viewer's attention is directed to contemplate everyday activity, the event score reconsidered as diagram can account for the active role demanded of the viewer.

We can view broadly the development of the diagram model via the work of three major artists: Dadaist Marcel Duchamp; the mid-century avant-garde composer John Cage; and George Brecht. This transformation can be described as a progressive dematerialization from a diagram model based on graphical representation to one founded upon the diagram's abstract operations. If Dada's initial attraction to the diagram was its ability to subvert objectivity, then Cage's innovation on this model was picked up by Brecht and furthered. Absorbing the strategies of Duchamp and Cage, Brecht produced a purely conceptual iteration of the diagram model by placing it in the service of the production of events rather than objects.

In a ground-breaking essay entitled "Dada's Diagrams," David Joselit adds a third category, the diagrammatic, to the well-understood Dada strategies of photomontage and the readymade. These three tactics achieve in different ways the undermining of commodity fetishism: "Montage does so by rupturing the proprieties of commercial speech, and the readymade by demonstrating the void underlying consumerism's proliferation of things."[4] The diagrammatic, on the other hand, "emphasizes pure relationality between things rather than directly assaulting their objectivity."[5] Joselit leans heavily on Gilles Deleuze and Félix Guattari's conception of the diagram as "pure Matter-Function…independent of the forms and substances, expressions and contents it will distribute."[6] The diagram's meaning depends on its analogous relationship to physical objects despite being a decidedly abstract structure. Its outcome, Joselit argues, is a visual politics able to "circumvent the object altogether."[7]

Joselit examines works by Duchamp, Francis Picabia and Marius de Zayas that employ diagrams as visual motifs to show the model's wide application within Dada, pointing to the spatial and temporal relations fundamental to this model. In a work like Picabia's 1919 *Construction moléculaire (Molecular construction)*, "[T]he grid spatializes historical relationships of adjacency among affiliated artists and publications while the machinic element evokes a logic of production through time" (Figure 3).[8] The diagram would be characterized also by a certain flexibility, generativity, and potentiality, exemplified in another Dada work: Duchamp's *Fountain* of 1917, a urinal chosen from a plumbing shop and submitted for exhibition under the pseudonym R. Mutt. *Fountain* subsequently appeared in various incarnations as sculpture, drawing, photograph and maquette until 1964.[9] To chart the outcomes of *Fountain* would produce something like a diagram: a collection of lines vectored through space and time that describe the life of Duchamp's fruitful idea. The readymade as thought strategy is itself a conceptual approach to the diagram model—a plan, as it turns out, for an object that is never *the* object, in the same way that *Fountain* is lost, recreated, and duplicated over the years. Duchamp's approach is unique among Dada's diagrams, which are by and large literal appropriations of graphical imagery in the vein of Picabia's *Molecular construction*. His clairvoyance was not sensed until decades later, when Brecht systematically engaged the same strategy. As we have seen through the varied outcomes of *Drip Music*, Brecht's scores have achieved at least as much as *Fountain*. But they do something more. The scores call the viewer to action, thus representing a potentiality not just for objects, but for activity operating on the level of real experience. Like Dada's diagrams, Brecht's event scores arrange temporal and spatial relationships. Additionally, however, the scores' vectors of force travel outward to unnamed objects and actors, proposing activity into which the viewer is implicitly incorporated. It is by this promise of potentiality, futurity, and active engagement that the scores' diagrammatic structure distinguishes itself from earlier avant-garde aesthetic fascinations with the diagrammatic as graphical representation—even from Duchamp's *Fountain*, which required the artist's authorial presence.[10]

Brecht's practice did not begin with the successes of *Drip Music*, although by 1953 he was already thinking in terms of drips and flows. From 1953-1962 he worked full-time developing patents in the Personal Products Division of Johnson & Johnson (Figure 4). His project was to develop tampon designs through the study of "the properties of menstrual fluid and the mechanics of fibrous absorption systems."[11] In 1963 he was granted permission to scale back his research

4 David Joselit, "Dada's Diagrams," in *The Dada Seminars*, ed. Leah Dickerman with Matthew S. Witkovsky (New York: D.A.P., 2005) 234.

5 Joselit 234. Joselit's emphasis on reconnection as opposed to narratives of visual and psychic separation and dislocation has marked a radical rethinking of Dada. He contributes to a greater redirection of Dada scholarship toward connectivity, relationality, and the diagram that is evident throughout *The Dada Seminars*.

6 Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: U of Minnesota P, 1987) 141.

7 Joselit 238.

8 Joselit 233.

9 For an exhaustive genealogy of Duchamp's *Fountain*, see William Camfield, *Fountain* (Houston: The Menil Colletion, 1989).

10 The scores' generative potential comes from their open enactor role and timelessness, yet their treatment by arts institutions and theoretical obsolescence in the wake of new technologies of "open systems" has precluded their continued distribution and productive life. The scores are locked away for the most part in libraries and archives, awaiting an advance in museological legitimation to ascend from ephemera to art object.

11 George Brecht, *George Brecht Notebook IV (September 1959-March 1960)*, ed. Hermann Braun (Cologne: Walther König, 1998). Four

on feminine hygiene products in order to develop his theories on "Innovational Research," which he describes in his notebooks as "a system for inventing inventions."[12]

"I.R. [Innovational Research]," he writes, "is 'meta-creational,' that is, it is concerned with creativity as such, with the nature of creativity, conditions for maximizing it, possibly its measurement, certainly the stimulation of it in individuals who have not previously made use of their creative potential. It is concerned, then, with meta-creation, in analogy to 'meta-linguistics,' meta-mathematics."[13] Brecht's theory, a study of structure independent of particularizing elements, represents a tactical evasion of objectivity belonging to the order of the diagram. A diagram represents actors engaging in activity, but the precise visuality of its operation is not predetermined, granting the diagram a certain openness and flexibility that accepts the circumstances of the world to which it is applied. Specifying how the objects relate to each other over delineating their particular form is how the diagram can, as Joselit says, circumvent the object altogether. Brecht's notes on "Innovational Research" appear in the same notebook he used to design artworks, confirming his broad interest in functional structures of production.

Brecht's formal experimentations with the score format began in the context of Cage's experimental composition class at the New School for Social Research, which he attended from June 1958 to August 1959.[14] The class was oriented toward writing musical scores, but since Cage's definition of music was anything but conventional, students were encouraged to push the format's limits. At that moment, Cage was preoccupied with breaking away from traditional methods of written musical composition by inventing a new system of graphical notation. *Variations I* of 1960 involves sets of transparencies bearing point and line formations that can be overlaid freely in various combinations to produce scores that resemble diagrams. Each point stands for an individual sound of the performer's choice, and the lines represent frequency, amplitude, duration, and order, also decided upon by the performer (Figure 5). Once the performer settles upon a particular orientation of points and lines, the distance between a point and a line gives the magnitude of the sound quality represented by the line.[15] Cage achieved an innovation in diagrammatic strategy by treating diagrams as scoring elements. Rather than employing the diagram as visual motif in the Dadaist manner, he explicitly invited the viewer to bring the diagram to bear on reality. Cage's transparent diagrams were not purely imaginary, like Picabia's *Molecular construction*, but corresponded to a real playing field wherein their vectors would be enacted. Cage remarked that distances between points and lines in *Variations I* may be either "measured or simply observed," and the piece is for "any number of performers; any kind and number of instruments."[16] His anything-goes approach to performance did not negate the fact, however, that lengthy explanations had to accompany the new notational forms in order for performers to be able to interpret them. This paradox recalls Duchamp's grandest engagement with diagrams and transparency, the *Large Glass* (1915-23)—a work so obscure that it demanded the publication of the artist's preparatory sketches and notes in the form of the *Green Box* (1934).

Whereas for Cage and Duchamp the diagram and language stand symbiotically side-by-side as communication tools, Brecht developed the means to enfold a diagrammatic structure within language itself, and he did so under Cage's instruction. One of his earliest scores generated for Cage's class was *Time-Table Music*:

> TIME-TABLE MUSIC
>
> For performance in a railway station.
>
> The performers enter a railway station and obtain timetables.
>
> They stand or seat themselves so as to be visible to each other, and, when ready, start their stopwatches simultaneously.
>
> Each performer interprets the tabled time indications in terms of minutes and seconds (e.g. 7:16 = 7 minutes and 16 seconds). He selects one time by chance to determine the total duration of his performing. This done, he selects one row or column, and makes a sound at all points where tabled times within that row or column fall within the total duration of his performance.
>
> George Brecht, Summer, 1959

of Brecht's patented designs appear in Julia Robinson, *George Brecht Events: A Heterospective* (Cologne: Museum Ludwig, 2005) 190. The earliest patent dates February 11, 1958, just five months before Brecht began participating in Cage's "Experimental Composition" course.

12 Brecht 108. From June 1958, at the start of his participation in Cage's experimental composition course, Brecht kept detailed notebooks of his ideas for artworks and performances. These notebooks continue well after he left the course in August 1959. Copies of Brecht's research proposal detailing his early theories on "Innovational Research" reside in the Gilbert and Lila Silverman Collection in Detroit and in a George Brecht artist file at the MoMA New York library, but the essay remains unpublished.

13 Brecht 109.

14 Other participants in the class included: Steve Addiss, Al Hansen, Dick Higgins, Scott Hyde, Allan Kaprow, Jackson Mac Low, and Florence Tarlow. Jim Dine, Harvey Gross, Al Kouzel, George Segal, and Larry Poons sometimes visited. Brecht remarks having known of Cage as early as 1951, but did not meet him until 1956. Brecht sent Cage his notes for an essay on chance methods called "Chance-Imagery" (finished in 1957 but not published until 1966 by Dick Higgins's Something Else Press), and subsequently Cage came to Brecht's house with David Tudor for a visit. It was Cage who urged Brecht to enroll in the experimental composition course. For an account of the experimental composition course, see Bruce Altshuler, "The Cage Class," in Cornelia Lauf and Susan Hapgood, eds., *FluxAttitudes* (Ghent: Imschoot Uitgevers, 1991) 17-23.

15 For an analysis of interpretations of Cage's score, see David P. Miller, "The Shapes of Indeterminacy: John Cage's *Variations I* and *Variations II*," *Frankfurt Journal of Musicology*, No. 6 (2003): 18-45.

16 John Cage, *Variations I* (New York: Henmar Press, 1960).

This score instructs performers to go to a train station and use posted arrival and departure times as durations for whatever sounds are made. It was the first score that Brecht signed and dated in his notebooks and the first to be typewritten on a white card, a practice he faithfully continued.[17] Brecht sets up a framework for an action through the written word and leaves the content of the piece up to chance and the performers' interpretations. The written instruction for Brecht does not merely supplement musical notation but precedes and replaces it, thus being accessible to anyone who can read English. In October 1958, the following text appeared in his notebook:

> A. *The Problem*: To construct situation in which it is made possible for light and sound events of any desired characteristics (frequency/wave-length, amplitude/brightness, duration/spectral distribution, morphology) to occur at any points in space and time.
>
> B. *Requirements for the System*
> 1. Maximum Generality (as above)
> 2. Maximum Flexibility (possibility for changing the nature of the universe of possibilities from which the elements of A are chosen, and for changing the nature of the situation in which the elements of A find themselves.)
> 3. Maximum economy.[18]

This was likely an assignment from Cage in the wake of stifling compositions produced by his students. It seemed slowly to guide Brecht's production for the rest of the class and beyond, for it was not until April of 1961 that Brecht finally reached "maximum economy" with *Word Event (EXIT)*, a score containing only the bulleted word *EXIT*. The importance of these notes is their indication that the solution to the "problem" Brecht faced was not to be found in an object but a system, and so the level on which Brecht conceived his work was primarily functional. His compositions were supposed to *do* something, and the diagrammatic model I am proposing for his work fulfills this "requirement" as well as those of generality, flexibility, and economy.

If Joselit has argued that the diagrammatic emphasizes pure relationality between things rather than directly assaulting their objectivity, then the liminal emerges as a major thematic concern of Brecht in scores like *Drip Music* and *Word Event*. His fascination with border situations is also expressed through his preoccupation with Duchamp's female alter-ego Rrose Sélavy, who has served as a critical mascot for Dada obsessions with sexuality and ambiguity. In a letter to George Maciunas, written sometime after Brecht's 1965 move to Cologne, he writes:

> I have often felt that we fluxers have really lacked a kind of Rrose-Sélavy type, who perhaps would rise beyond the charm and delicacy of that gallante, and really carry it off *live* (not simply in a photo, using someone else's hands, as chez MD).[19]

Clearly Brecht saw Fluxus in terms of Dada, even to the level of desiring analogous dramatic characters able to inhabit the liminal. Duchamp's transgressions did not stop at gender, of course. He was interested, like Brecht, in all sorts of border situations, including the shared territory of art and science. Brecht's fixation on liminal zones, and the separation of his work into scores and their resulting performances and objects, represents his response to the tense meeting of text and image, an anxiety of the avant-garde throughout a century in which images come to dominate the cultural landscape.

I want to draw attention to the opening of Joselit's essay, specifically to his discussion of Duchamp's *Unhappy Readymade* of 1917, in order to deepen his analysis of the way text and image operate within it (Figure 6). This was a geometry book presented to Duchamp's sister Suzanne and her husband Jean Crotti as a wedding gift to be hung from their balcony, as Duchamp has described, for the wind "to go through the book, choose its own problems, turn and tear out the pages."[20] Joselit carefully relates the book's subject to the weather's effect on its pages. "[I]f geometry is not represented, it has nevertheless been enacted through processes of puckering, folding, and furrowing caused by exposure to weather. The diagrams visible in these documents are inscribed not by the printing press but by the elements."[21] All that remains of *Unhappy Readymade* is a painting by Suzanne Duchamp, a photograph of the hanging book, and an altered version of this photograph that Duchamp included in his *Boîte-en-Valise (Box in a Valise)*, a mini-exhibition of his major works in a suitcase (1934-41). Joselit draws attention to the reinscription made by Duchamp in the last version—"He added these details to make the weather's disorderly diagram collide more forcefully with geometry's universal abstraction"—but strangely he does not attend to the particular diagram Duchamp chose to reinsert.[22] If *Unhappy Readymade* is to be understood as a diagram in and of itself, then certainly the illustration of Duchamp's

[17] George Maciunas, who oversaw the publication of Brecht's scores, also played a role in ensuring their visual consistency. He typically used New Gothic font on his IBM Composer typewriter for all Fluxus texts.

[18] This entry is dated 26 October 1958. George Brecht, *George Brecht—Notebooks II (October 1958-April 1959)*, ed. Dieter Daniels with Hermann Braun (Cologne: Walther König, 1991) 35.

[19] Jean Brown Archive, Box 30, Folder I.30.31.

[20] Pierre Cabanne, *Dialogues with Marcel Duchamp*, trans. Ron Padgett (New York: Viking, 1971) 61.

[21] Joselit 221.

choosing should take on a heightened significance. It is a diagram of two overlapping circles whose intersecting points are connected by a straight line to a point "M," from which tangents to each circle are drawn. One tangent meets point "C" (Jean Crotti?), the other, point "D" (Suzanne Duchamp?). In geometry, this diagram exhibits what is called the radical axis of the circles, or the locus of points whose tangents to the two circles are the same length. Our point "M" (Marcel?) finds itself not only at the radical axis of intersection between these two spheres, but also connected in two directions to lines meeting the horizon of each.

Superficially, the image is a coded diagram of Crotti and the Duchamp siblings' triangulated relationship but may be read more deeply as a metaphor for Duchamp's deliberate and repeated self-positioning between two worlds—that of the textual and visual, the male and female, or of art and science, to name but a few. For if, as Joselit suggests, the diagram emphasizes pure relationality between things, then the radical axis Duchamp reinscribed in *Unhappy Readymade* was a premonition of the crucial role the diagram would play in the twentieth-century contest between text and image, and an acknowledgment of the diagram's capacity for embodiment of the uncomfortable in-between. A purely instrumental structure, it wedges itself uncomfortably between a design's inception and use. Deleuze and Guattari's theorization of the diagram confirms its liminal status in claiming that:

> [I]t plays a piloting role. The diagrammatic…does not function to represent, even something real, but rather constructs a real that is yet to come, a new type of reality. Thus when it constitutes points of creation or potentiality it does not stand outside history but is instead always 'prior to' history.[23]

If the diagram "plays a piloting role," then it provides guidance from one position or state to another. Joselit introduces the term "embodied utopianism" to describe this process because, for Deleuze and Guattari, the diagram is linked "to a dynamic form of agency on the one hand and to a nonplace or utopia on the other."[24] It exists between an historically locatable origin and ends prior to history where its vectors lay in wait for an active interpreter to reconnect them to the real, always with the potential for creating something radically new.

Brecht gave the title *Event Score* to one work, strangely exempted from *Water Yam*, which emblematizes the embodied utopianism of all the others:

> EVENT SCORE
>
> Arrange or discover an event score and then realize it.
>
> • If the score is arrived at while awake, then make a dream realization, that is, note all dreams until a realization of the score has been discovered in a dream.
>
> • If the score is dreamed, then make a waking realization, that is, search in your waking life for whatever dream or part of a dream constitutes the score.
>
> George Brecht[25]

Here again Brecht focuses upon the liminal but at the level of consciousness. It is a symbol of Brecht's aspiration for event scores to connect the known and the unknown, to translate dreams into something real. If, in Joselit's words, "What has been called the postwar 'dematerialization' of art…is founded in a diagrammatic visuality that…is purely semiotic," then Brecht has contributed significantly to the transformation of the diagram model from the visual to the textual, from the material to the abstract.[26] But the goal therein is also to enact the reverse: to make the abstract diagram yet again real when the viewer brings it to bear on reality. Brecht's event scores extended the possibilities of the diagram as a model for artistic production by associating the diagram with the production of creative activity itself. Guided by the event score, the viewer is at once faced with the reality of his or her dreams and awakened to the potential of these dreams made reality.

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22 Joselit 222.

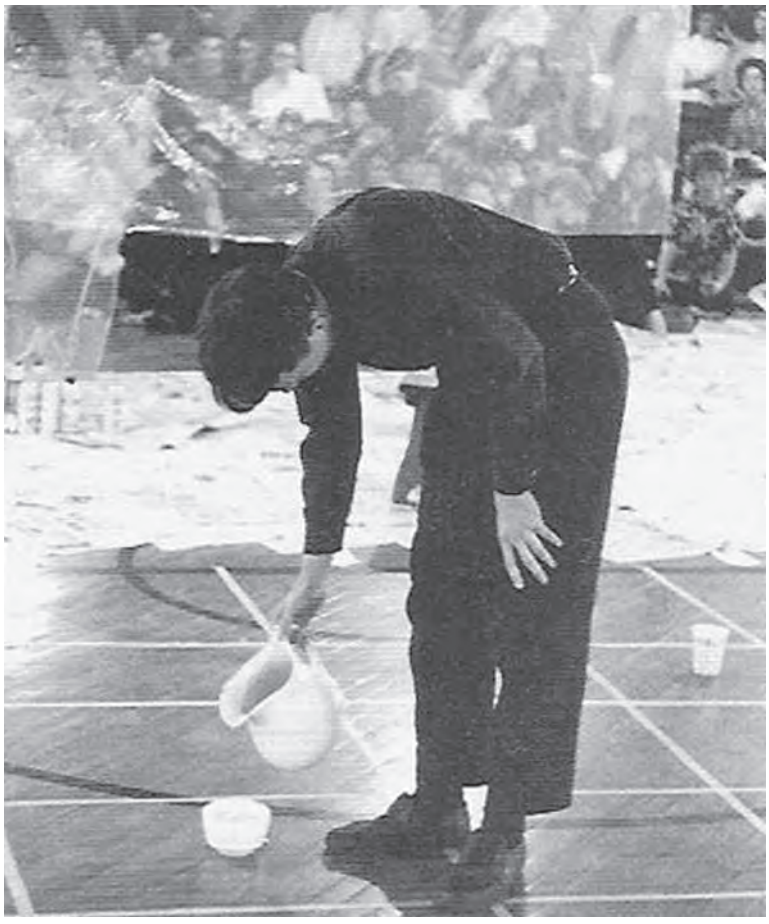
23 Deleuze and Guattari 142.

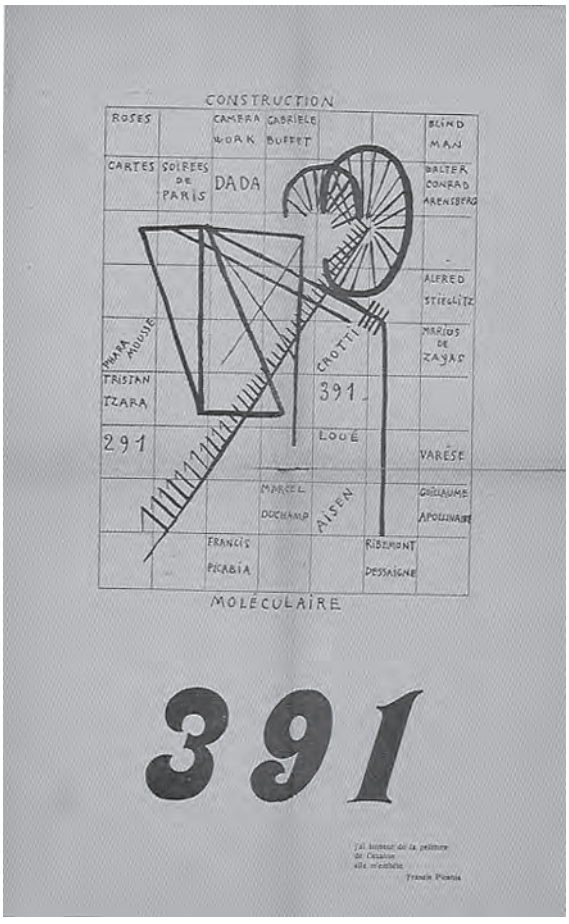
24 Joselit 235.

25 Jean Brown Papers, Box 3, Folders 31-35.

26 Joselit 238.


WATER
YAM
ICED DICE
DELIVERY
RELOCATION




CONSTRUCTION
ROSES
CAMERA WORK
GABRIELE BUFFET
BLIND MAN
CARTES
SOIREES DE PARIS
DADA
BALTER CONRAD ARENSBERG
ALFRED STIEGLITZ
MARIUS DE ZAYAS
PAMELA MOORE
TRISTAN TZARA
CROTTI
391
291
LOUÉ
VARESE
MARCEL DUCHAMP
AISEN
GUILLAUME APOLLINAIRE
FRANCIS PICABIA
RIBEMONT DESSAIGNE
MOLÉCULAIRE
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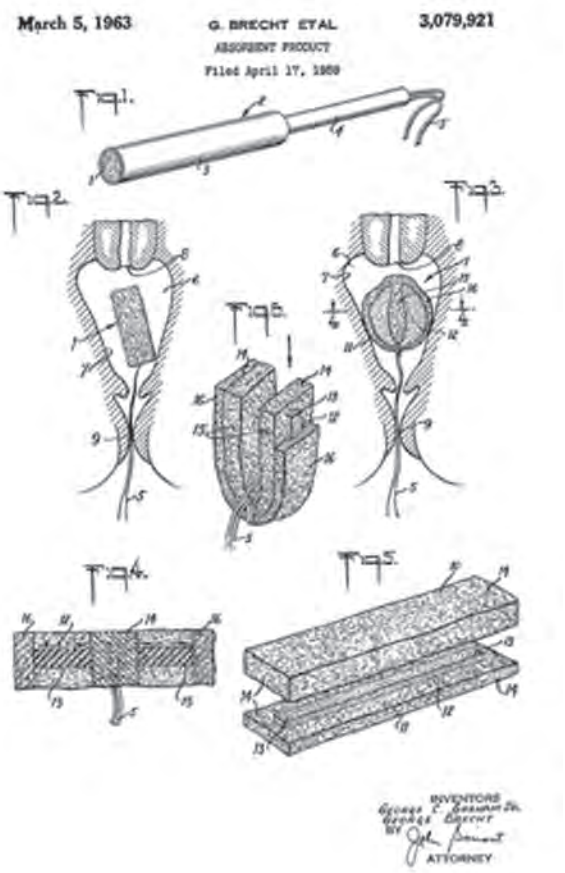
[*facing page, top*] Figure 1. George Brecht, *Water Yam*, boxed event scores, 1963-*c*. 1970. Photograph by Brad Iverson; courtesy of the Gilbert and Lila Silverman Fluxus Collection, Detroit.

[*facing page, lower left*] Figure 2. George Brecht, *Drip Music*, performance at Rutgers University, April 1963, photo by Peter Moore © Estate of Peter Moore/ VAGA, New York, NY.

[*facing page, lower right*] Figure 3. Francis Picabia, *Construction moléculaire (Molecular construction)*, front cover for *391* 8 (February 1919), © 2007 Artists Rights Society (ARS), New York / ADAGP, Paris.

[*this page, right*] Figure 4. George Brecht, *et. al.*, "Absorbent Product," United States Patent No. 3079921, filed April 17, 1959.



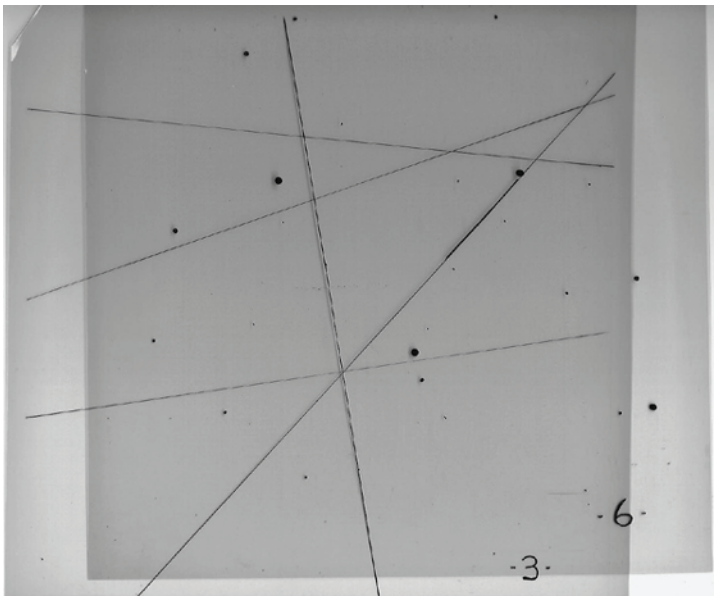


Figure 5. John Cage, *Variations I*, 1960, used by permission of C. F. Peters Corporation on behalf of Henmar Press, Inc.

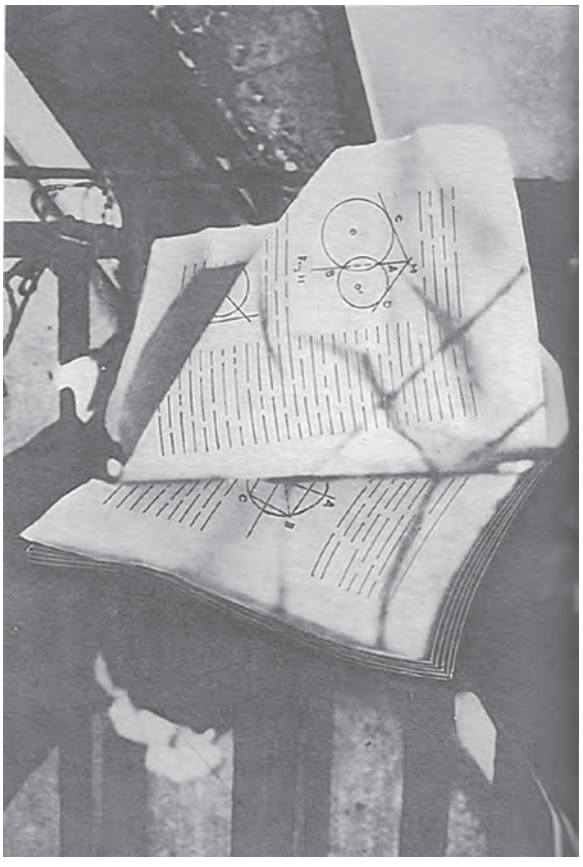


Figure 6. Marcel Duchamp, *Unhappy Readymade,* from *Boîte-en-Valise*, 1934-41 (box), 1938 (collotype), Philadelphia Museum of Art, The Louise and Walter Arensberg Collection, © 2007 Artists Rights Society (ARS), New York / ADAGP, Paris / Succession Marcel Duchamp.