

Reunion: John Cage, Marcel Duchamp, Electronic Music, and Chess*

Revised and expanded version, 2008-2009

ABSTRACT

The author chronicles his involvement in *Reunion*, a 1968 collaborative performance featuring John Cage, Marcel Duchamp, and Teeny Duchamp, with electronic music by David Behrman, Gordon Mumma, David Tudor, and Lowell Cross. After addressing several misconceptions about *Reunion*, certainly including the incorrect dates of the performance that have been reported in various publications, the author outlines specific details about the conditions surrounding the performance and the sound-distributing chessboard that he designed and built. Finally, he offers an interpretation of the event.

The year 2008 marked the fortieth anniversary of *Reunion*, a performance in which games of chess determined the form and acoustical ambience of a musical event. The concert – held at the Ryerson Theatre in Toronto, Canada – began shortly after 8:30 on the evening of March 5, 1968, and concluded at approximately 1:00 a.m. the next morning. Principal players were John Cage, who conceived (but did not actually “compose”) the work; Marcel Duchamp and his wife Alexina (Teeny); and composers David Behrman, Gordon Mumma, David Tudor, and Lowell Cross. I also designed and constructed the electronic chessboard, completing it only the night before the performance. Except for a brief curtain call with Merce Cunningham and Dance Company in Buffalo, NY five days later (March 10, 1968) [1], Duchamp made his last public stage appearance – in the role of chess master – in *Reunion*.

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Misconceptions

In the intervening 40 years, more fiction than fact regarding *Reunion* has appeared in documents about Cage and Duchamp, even from the pens of authors with prestigious reputations. Nicolas Slonimsky (1894-1995) wrote in the 1978 edition of *Baker's Biographical Dictionary of Musicians*:

He [Cage] also became interested in chess and played demonstration games with Marcel Duchamps [sic], the famous painter turned chessmaster, on chessboards designed by Lowell Cross to operate on aleatory principles with the aid of a computer and a system of laser rays [2].

Cage and Duchamp played only one public “demonstration” game, the one in *Reunion*, and I have only recently (1999-2000) built a second such chessboard. We used no computer in conjunction with that 1968 chessboard and we used no system of “laser rays.” My development of the first “laser light show” began the following fall and winter, 1968-1969; I collaborated in that project with the sculptor and physics professor Carson D. Jeffries at the University of California, Berkeley, and eventually, with Tudor [3].

In his Cage biography, *The Roaring Silence – John Cage: A Life*, David Revill wrote:

Early in 1968 Cage realized *Reunion*. A number of sound-systems which operated continuously were prepared by Tudor, Mumma, and David Behrman. The sounds varied according to the positions of pieces on a specially prepared chessboard built by Lowell Cross of the Polytechnical Institute in Toronto. The gates switched by the pieces triggered a passage of music by Cage, Tudor, Mumma, or Behrman; since the sound-systems operated all the time, even the reappearance of a move would lead to a different sound.

Teeny Duchamp looked on while Cage and Marcel Duchamp played the game. The evening began with a large audience. Cage and Duchamp adjourned after several hours when the house was empty. Next morning they finished the match; Duchamp had given himself the handicap of a knight, but still beat his pupil [4].

Revill's description contains some very misleading statements. There were sound-generating systems prepared by Tudor, Mumma, Behrman, and me; no passages of music by Cage were presented to the chessboard. I had no affiliation with the [Ryerson] Polytechnical Institute; however, the performance was in the theatre on the Ryerson campus. At the time I was a graduate student and Research Associate in the Electronic Music Studios at the University of Toronto. I based my design of the chessboard on photoresistors, not gates or triggering circuits.

Revill also presents the wrong impression that the event encompassed only one game. In actuality, Teeny Duchamp watched her husband (White) defeat Cage (Black) within a half hour – despite his handicap of only one knight – whereupon Teeny (White) and Cage (Black) played a second game until about 1:00 a.m. in the presence of a waning audience of less than 10 persons, one of whom shouted “Encore!” Duchamp memorized the last moves and positions of the chesspieces in this unfinished game, eventually won by Teeny in New York a few days later. There is no record of the moves in either of the games of *Reunion*.

Cage told me this version of the outcome of the second game at a later 1968 performance of *Reunion*. However, in an interview with Moira and William Roth, “John Cage on Marcel Duchamp,” (*Art in America*, Vol. 61, No. 6, November-December 1973, pp. 72-79), Cage stated, “We continued the game the next morning in [Toronto’s Windsor Arms] hotel. I lost.” There is no doubt that Teeny beat Cage in the second game.

The following brief description by the Duchamp biographer Calvin Tomkins, is partially accurate, as far as it goes:

The first half of 1968 was a busy time for the Duchamps. They went to Toronto in February [sic] to take part in a musical “event” by John Cage. Entitled *Reunion*, the event consisted of Cage and Duchamp (and then Cage and Teeny) playing chess on a board that had been equipped with contact microphones; whenever a piece was moved, it set off a gamut of amplified electronic noises and oscilloscopic images on television screens visible to the audience [5].

The functions of the chessboard actually depended upon the covering or uncovering of its 64 photoresistors (one per square), not upon the nine contact microphones installed inside. At Cage’s insistence, I provided internal locations for contact microphones so that the audience could hear the physical moves of the pieces on the board if the appropriate conjunctions of inputs, outputs, and player movements were (by chance) to occur. At most, those sounds were soft “thunks,” even when greatly amplified. The oscilloscopic images emanated from my modified monochrome and color television screens, which provided visual monitoring of some of the sound events passing through the chessboard.

More recently, an erroneous description of *Reunion* has come from the pen of Alice Goldfarb Marquis, in her *Marcel Duchamp: The Bachelor Stripped Bare – A Biography* (Boston, MFA Publications, 2002). On p. 297, she incorrectly asserts that *Reunion* was performed in February 1968 (not on March 5, 1968, repeating the mistake of Calvin Tomkins and others), and that Teeny played Marcel in the second game. The concert program and Shigeo Kubota’s photographs [6], reproduced herein, refute these claims.

But even more implausible is Ms. Goldfarb Marquis' fanciful notion that Teeny beat Marcel in the second game. In an email message (December 16, 2002), I informed her that her statement "The notion of beating her husband across the chessboard [in the second game of *Reunion*] ... must have been gratifying" is an unsubstantiated fabrication. She finally replied that I should "Rest assured that [the errors] will be repaired in the second edition of the book" (March 10, 2003).

Preconditions

One cold evening in late January or early February 1968, John Cage telephoned me at the Spadina Road apartment in Toronto where my wife Nora and I lived. He had already heard the results of electronic sound-motion produced by the circuitry of my "Stirrer" [7]. Cage asked if I would build for him an electronic chessboard that would select and spatially distribute sounds around a concert audience as a game unfolded. Because I was in the process of completing my graduate work at the University of Toronto, at first I politely refused his request. He said, "Perhaps you will change your mind if I tell you who my chess partner will be." After I said "OK –," Cage said, "Marcel Duchamp."

I was persuaded, of course, and I immediately began to design the chessboard, thesis or no thesis. Cage figured prominently in my thesis, which explored the historical development of electronic music and the beginnings of electronic music studios between 1948 and 1953 [8].

Cage told me that he was naming the piece *Reunion* because he wanted to bring together artists with whom he had been affiliated in the past in a homey but theatrical setting. He and Duchamp would play chess at center stage, and the moves of the game would result in the selection of sound sources and their spatial distribution around the audience. Duchamp would sit in a comfortable easy chair (Cage would be content with an ordinary kitchen chair); Teeny would sit close by and watch; my "oscilloscopic" TV sets, on stage, should be in operation; and the chess aficionados at center stage would drink wine and smoke – Duchamp, cigars; Teeny and Cage, cigarettes. All the while, Cage's composer-collaborators Behrman, Mumma, Tudor, and I would provide the electronic and electroacoustical sounds of the concert experience. Clearly, *Reunion* was to be a public celebration of Cage's delight in living everyday life as an art form. Cage left the remaining details up to me but told me to contact the Estonian-born Canadian composer Udo Kasemets (1919-), who was organizing a festival called "Sightsoundsystems" in Toronto, for which *Reunion* was to be the opening event.

Chess had been part of Duchamp's everyday life for decades, and in the 1960s it became part of Cage's everyday life, too. The composer had revered Duchamp since their first meeting in 1942, but kept his distance "out of admiration." Cage eventually found enough courage to ask Duchamp for chess lessons, essentially as a way of getting to know him [9]. The setting for *Reunion* on the Ryerson Theatre stage – with the imposing chair for Duchamp, the cigars and cigarettes, the wine and chess – was an obvious imitation of the scene at the Duchamp's second-floor New York townhouse

apartment when Cage showed up one or two evenings per week for “lessons.” “The way Marcel taught was to have Teeny and me play chess” recalled Cage. “Now and then he would come over and remark that we were playing very badly. There was no real instruction” [10]. In the 1950s, Duchamp was considered by the American grand master Edward Lasker to be one of the top 25 chess masters in the U.S. [11].

The Chessboard

Other than the stipulation about contact microphones and his wish that the chess game would result in the selection and distribution of sounds around the audience, Cage made no requests about the actual operation of the chessboard. However, since I had an understanding of his aesthetic posture in the late 1960s, I made several decisions about the chessboard circuitry that I knew would please him.

Immediately before the opening move, “silence” (in the Cageian sense) prevailed. The two pairs of ranks on each side, where the chesspieces repose before the game begins, were “off” (i.e., not passing a signal) when their 32 photoresistors were covered; the four center ranks were “off” when those remaining 32 photoresistors were exposed. With 16 inputs (allowing four signals each from the four collaborating composers) and eight outputs (each directed to a loudspeaker system), the complexity of the sound environment enveloping the audience increased as the early part of the game progressed; it then diminished as fewer and fewer pieces were left on the board.

I followed no particular plan while connecting the internal components of the chessboard except to ensure that each of the 16 inputs (designated 1 – 16) could appear at up to four of the eight different outputs (designated A – H). During the course of a game, a signal at input 1 could appear at outputs B, E, F and/or G, depending upon the positions of the chesspieces on the board. My arrangement was arbitrary, unplanned and quasi-random, but any of the 16 inputs had a “chance” of appearing in as many as four of the eight loudspeaker locations surrounding the audience. If one assumes that the stage was “north” of the theatre seats, the loudspeakers were arranged as points on a compass: loudspeaker A was northwest; B, north; C, northeast; D, east; E, southeast; F, south; G, southwest; and H, west.

Cage’s hope for sound movement during the game was realized several times during the course of the evening. For example, if Duchamp (White) moved his Queen from Queen 1 (Q1; input 1, output F) to King’s Bishop 3 (KB3; input 1, output B), the sound present in input 1 would continue to be heard from the loudspeaker at the back of the hall (F, south), then also appear in (or “move to”) the loudspeaker facing the audience, just below center stage (B, north). I do not know, however, if Duchamp ever made such a move during the game. Unfortunately, no one thought to keep a record of the moves that the players made during the evening. Ancillary effects of sound choices and motion resulted from the shadows of hands and arms as the players moved pieces; these additional elements pleased Cage immensely.

While *Reunion* was supposed to provide a homey atmosphere, it was also quite theatrical, with well-defined roles for stars (seated at center stage) and bit players. The use of photoresistors, one embedded in each of the 64 squares, required that the surface of the board be flooded with bright illumination. The chessboard was in the spotlight, and so were the stars. Cage did not wish to make the lighting requirements an issue, but he did tell me, “I’m so glad that Marcel will be in the spotlight.”

The photoresistors and fixed resistors form a passive resistive matrix. The inputs and the outputs are unbalanced “line level” and can operate with either consumer-grade or professional audio equipment; however, the outputs require a high-impedance load. The purely resistive circuitry attenuates the incoming signals. Accordingly, if a square is “on” (i.e., passing a signal) 12 decibels (dB) gain is required to overcome the attenuation in the two back pairs of ranks, and 24 dB gain is required for the four center ranks.

A “T pad” attenuates each signal. The two back pairs of ranks have the photoresistors at the input; the four center ranks have the photoresistors connected to circuit ground. In their “off” conditions, the two back pairs of ranks (covered) attenuate incoming signals by an additional 62 dB; the four center ranks (uncovered) attenuate incoming signals by an additional 56 dB. The circuitry does not allow “off” to be completely off, but it was close enough for *Reunion*.

The purely resistive circuitry of the chessboard adds an insignificant amount of distortion to audio signals, and the frequency response is very uniform. After accounting for its broadband attenuation figures (see above) its response is down no more than 0.3 dB at 20 Hz and 1.3 dB at 20 kHz. The penalty, of course, is the requirement for gain makeup after attenuation.

I built the device with two tournament-size Masonite™ boards, one on top with the photoresistors mounted in the centers of the squares, and the other as the base. (The *Reunion* chessboard may be turned over for a game of “non-electronic” chess.) The two Masonite™ boards are separated by ordinary two-by-fours painted black. The two-by-four on White’s right-hand side has two openings: one for access to the 24 RCA jacks (16 unbalanced inputs, 8 unbalanced outputs) and the other for the nine cables from the contact microphones mounted inside. Its dimensions are 420 x 420 x 77 mm, or 16.5 inches square by 3 inches high.

The Wine

As in the design of the chessboard, Cage left the essential issue of wine entirely up to me. Knowing that Duchamp could defeat Cage handily in a couple of games within about an hour, I decided to buy for the stars only one bottle of wine. This decision was reinforced by the knowledge that I would be paying for it myself, and despite my financial status as a graduate student, I would be expected to provide a high-quality vintage. The result was a 1964 Château Kirwan [12], which I had to purchase with a special “licence” to serve it in public, from the Head Office of the Liquor Control Board of Ontario (LCBO), near

Toronto's Lake Shore Boulevard.

"How many bottles of wine?" asked the LCBO clerk.

"One," I replied.

"How many people will be in attendance at your event?"

"It's a public concert, perhaps 500."

"And you're buying only one bottle of wine, eh?"

"Yes."

He wrote this down, and then, with a quizzical shrug, he handed me my copy of the requisite forms and quickly produced a bottle of 1964 Château Kirwan from the large storeroom behind the counter. Nora provided the wine glasses for the evening.

After Duchamp soundly defeated his student-opponent in the first game (despite the handicap), 25 minutes and over one-half of the bottle of wine had been consumed. We still have the glass from which Duchamp drank; the other two and the empty bottle are gone. His glass is now chipped, after our several moves since 1968. If he were alive today, I am sure that Duchamp would agree that the chips serve to complete the original design.

The First Game

Shortly after the announced time of 8:30 p.m. on Tuesday, March 5, 1968, *Reunion* began. The collaborating composers "gamely" began producing sounds from their own pre-existent works, all of which utilized special equipment built, or custom-modified, by the composers themselves. Behrman's contribution was *Runthrough*, Mumma performed his *Hornpipe* and *Swarmers*, and Tudor – who did not enter into this engagement with great enthusiasm – was content with the title *Reunion*. The works of Behrman, Mumma, and Tudor were all examples of "live electronic" music, performed continuously throughout the evening and into the night. My sonic contributions were two pieces of pre-recorded tape music, *Video II (B) / (C)* [13] and *Musica Instrumentalis*, which also produced the oscilloscopic images on the television screens.

As noted above, Duchamp (White) offered to play his student-opponent Cage (Black) with a handicap in this first game. Duchamp removed his King's Knight from its square (KN1) and replaced it with a U.S. quarter dollar. With this action, he demonstrated his understanding of the function of the chessboard – and indeed, his understanding of the entire event. Duchamp played his role as chess master that evening with quiet, unruffled dignity, as though the event was nothing more than that intended: a part of everyday life. As also reported above, he decisively trounced Cage within about 25 minutes – the handicap had no bearing on the outcome of that game.

The Second Game

While the star performers were exchanging amenities, the break between games provided an intermission – and an opportunity for the exodus of a large segment of the audience. Then, at about 9:15 p.m., the scene reverted to the actual circumstances of the

chess “lessons” at the Duchamps’ New York townhouse apartment at 28 West 10th Street: Teeny (White) played against Cage (Black), and Duchamp observed – or dozed off. The collaborating composers again dutifully provided their electronic signals to the inputs of the chessboard, as the game between Cage and Teeny went on, and on, and on. They were well matched as chess opponents, and they played seriously and deliberately.

Finally, at about 1:00 a.m. on March 6, 1968, Duchamp made known his fatigue. Cage and Teeny agreed to adjourn and to continue the game in the future. The event came to its inconclusive ending.

Duchamp must have become weary of the long, amateurish game between his two chess students and the sound environment of *Reunion*, which by 1:00 a.m. he had experienced “close to” for over four hours. Monique Fong, to whom I am very grateful for her excellent French translation of *Reunion* published in *Étant donné Marcel Duchamp*, sent me an email on April 12, 2004 for my personal file: “When I last saw Marcel or, maybe, just talked to him on the phone, I remember asking him about the performance in Toronto and whether there had been ‘music.’ ‘Oh oui,’ he said, ‘beaucoup de bruit.’ ” [‘Oh yes, lots of noise’].

Interpretation

A large part of Cage’s aesthetic of indeterminacy centered on his wish to remove his personality from his art. He was able to accomplish, and to justify, his indeterminate “system” – and that is what it was, a well-defined system – by utilizing extramusical means to realize his works: the *I Ching*, pitching pennies to arrive at chance operations, making use of the imperfections on score paper, randomly dropping squiggle-lined transparencies on top of each other, and so on. The idea of using a chess game to realize a musical-theatrical work was one of his most creative: it simultaneously exploited his never-concealed penchants for high theatre, the appeal of chess to intellectualism, and the living of everyday life. If nothing else, John Cage was an intellectual: self-taught, American, and as original as they come.

His quest for “purposeful purposelessness or a purposeless play” [14] was elegantly defined in his concept of *Reunion*, but as a musical-theatrical performance, the ultimate realization of the work was indeed inconclusive. The first game ended too quickly to allow the underling ideas to be fully experienced by those in attendance; the second dragged on for so long that it had to be postponed due to the exhaustion of the principals and the dwindling audience. Finally, the circumstances prevailing at *Reunion* permitted no correlation between Cage’s elegantly proscribed application of his system of indeterminacy and his underlying hope that elegant games of chess could bring forth unforeseen, and even elegant, musical-theatrical experiences.

The games clearly were not elegant, and I, for one, held no expectation that those two games could have brought forth elegant, or even interesting, musical structures. To be objective, one must grant, of course, that Cage was not interested in musical *structures* in the mainstream sense; he was always hoping to be surprised by the unknowable events

that occurred during his *unstructured*, but indeterminately conceived, performances. After this inconclusive event, what remained of *Reunion*? High theatre, Cage's appeal to intellectualism, and everyday life.

Afterward

Gracious hostess and excellent cook that she always has been, Nora prepared an after-concert dinner for the chess players and the musicians. As I was busying myself at the Ryerson Theatre with the setup for *Reunion*, she made a large pot of her special sauce and had only to prepare the pasta, warm up the garlic bread, and toss the salad for a delicious spaghetti dinner.

To our mutual disappointment, no one came to our small Spadina Road apartment but David Tudor, who had already moved in with us (as was his custom on this and many other occasions) for the duration of the *Reunion* experience. We ate our dinner between 2:30 and 3:30 a.m., an hour during which David often became quite lively. But Nora and I had the next day to consider, and there was little revelry except that conjured up by David. He imbibed copious quantities of our Hungarian and Italian red wines – and his so-called “medicinal” preparation, Medicine Man, an elixir that he made from rum, which he carefully filtered through secret, and mysterious, herbaceous ingredients.

The Toronto newspaper critics were unanimous in their indignation about *Reunion*, as evinced in the March 6, 1968 afternoon editions of the *Star* and the now-defunct *Telegram*. William Littler, music critic for the *Star*, produced a headline saying that the event was “mighty boring.” His colleague and cultural observer Robert Fulford found it “infinitely boring” and an example of “total non-communication, all around” [15]. The *Telegram*'s Kenneth Winters concluded that the “fusty, dusty, illustrious visitors are just about sufficiently fossilized for reverent immurement in a university” [16]. The editors of the conservative *Globe and Mail* did not condescend to send a reporter to *Reunion*.

Two additional performances of the work occurred that spring: one on May 13, 1968 at Mills College in Oakland, CA, the other on May 27, 1968 at Jerry Brandt's Electric Circus, 23 St. Mark's Place, New York, NY 10003. At Mills College, I was Cage's chess opponent. David Tudor provided the sound environment; we performed in the Concert Hall of the Music Building. David Behrman and Gordon Mumma were unable to come to Oakland at that time. In keeping with the Cage-Duchamp dress code, I wore a dark suit and tie, but Cage was dressed less formally. (This was his home state, California, after all.) The reporter for *The Oakland Tribune*, Paul Hertelendy, suggested that Cage's opponent looked like a member of the Mafia, or perhaps an FBI agent, in the incongruous role of a chess player. I was White, and I made a very bold opening, a variation on “Fool's Mate.” Cage commented on my aggressiveness as I took some of his pieces, but that opening is dangerous when facing a practiced opponent, and he went on to win decisively. After all, he *had* been practicing quite a bit of chess over the past weeks, while I had been endeavoring to end my career as a graduate student [17].

Even though they lived in New York, the Duchamps stayed away from the Electric Circus event; Cage (White) found as his opponent John Kobler (Black), a staff writer for *The Saturday Evening Post*. As in Toronto, the collaborating composers Behrman, Mumma, Tudor, and Cross “reunited” to present their electroacoustical signals to the chessboard. In addition to setting up the chessboard, I instructed Cage’s friend Jean Rigg in the fine art of margarita making – in the absence of the Duchamps, no wine was served [18]. A contact microphone was affixed to the Waring Blender™, margaritas were served all around as long as there were ingredients, and a grand time was had by all – with at least one exception.

The redoubtable critic for *The New York Times*, Harold C. Schonberg (1915-2003), devoted as much space in his May 28, 1968 column “Music: Libel on the Bishops and Pawns” critiquing the moves in the chess match as he occupied in attempting to describe the sounds heard by the audience. He concluded that “It was dark, it was hot, and to tell the truth it was lousy chess and lousy music ... a noisy and irritating bore. Electronic music is ill served with stuff like this.” Unfortunately, he must not have been “served” a margarita, because he also could have critiqued Jean Rigg’s activities. In so doing, he just might have been able to enjoy himself a bit more.

By the time of the Electric Circus performance, *Reunion* had become part of *my* everyday life, and I was content to let it go at that.

The Players

Henri-Robert-Marcel Duchamp was born at home in Blainville (Haute-Normandie), France on July 28, 1887. He was one of the most influential figures in twentieth-century avant-garde art. He died on October 2, 1968 at his apartment at 5 rue Parmentier in Neuilly-sur-Seine (Hauts-de-Seine), near Paris, at the age of 81 [19].

John Milton Cage, Jr., the son of an inventor, was born in Los Angeles, CA on September 5, 1912 [20]. He became one of the world leaders of the twentieth-century musical avant-garde. Cage died of a massive stroke in New York, NY on August 12, 1992, 24 days before his 80th birthday [21].

Alexina (Teeny) Duchamp was born Alexina Sattler on January 20, 1906 in Cincinnati, OH [22] and married Marcel Duchamp on January 16, 1954. She died on December 20, 1995 at her home in Villiers-sous-Grez (Seine-et-Marne), France, at almost 90 years of age [23].

David Eugene Tudor was born in Philadelphia, PA on January 20, 1926. He was one of the premier avant-garde pianists and electronic composers of our time, and began working with Cage as a member of Merce Cunningham and Dance Company (MCDC) in the early 1950s. He became the Company’s Musical Director when Cage died. Tudor died in his sleep on August 13, 1996 at his home in Tomkins Cove, NY at the age of 70 [24].

Gordon Mumma was born on March 30, 1935 in Framingham, MA. From 1966 to 1974, he was a composer/musician (with Cage and Tudor) with MCDC and was one of the first composers to utilize electronic circuits of his own design. He has retired from the music faculty at the University of California at Santa Cruz and is now Professor Emeritus [17, 25].

David Behrman was born on August 16, 1937 in Salzburg, Austria. He formed the Sonic Arts Union in 1966 with Mumma, Robert Ashley, and Alvin Lucier and was a composer/musician with MCDC, 1970-1977. He has since taught electronic and computer music at Bard, Mills, and other U.S. colleges [17, 26].

Lowell Merlin Cross was born in Kingsville, TX on June 24, 1938. He was affiliated with the School of Music at The University of Iowa, Iowa City, from 1971 to 2002; promoted through the ranks to Professor, 1981, Professor Emeritus, 2002 [27].

Acknowledgements

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References and Notes

1. <http://www.merce.org/repertory.html>; Calvin Tomkins, *Duchamp* (New York: Henry Holt & Co., 1996), pp. 445-446. Tomkins on p. 445 incorrectly states that *Reunion* took place in February 1968, repeating the same mistake (“5 February”) found in Anne d’Harnoncourt and Kynaston McShine, eds., *Marcel Duchamp* (New York: Museum of Modern Art and Philadelphia: Philadelphia Museum of Art, 1973), p. 31; and again (“5 February”) in Jennifer Gough-Cooper and Jacques Caumont, *Ephemerides on and about Marcel Duchamp and Rose Sélavy, 1887-1968* (Milan: Bompiani, 1993), unpagued. This mistake has been perpetuated further in Alice Goldfarb Marquis’ 2002 biography, *Marcel Duchamp* (see text).

2. Nicolas Slonimsky, ed., *Baker’s Biographical Dictionary of Musicians*, 6th ed. (New York: Schirmer, 1978), p. 267. In the seventh and eighth editions of *Baker’s* (1984, 1992), with my prompting, Slonimsky corrected the spelling of Duchamp’s name

and reported on a singular chessboard, but retained the incorrect statement about “a computer and a system of laser rays.”

3. Lowell Cross, “The Audio Control of Laser Displays,” *db, the Sound Engineering Magazine*, Vol. 15, No. 7 (July 1981), pp. 30-41.

4. David Revill, *The Roaring Silence – John Cage: A Life* (New York: Arcade Publishing, Inc., 1992), p. 223.

5. Tomkins [1], pp. 445-446.

6. John Cage and Shigeko Kubota, *Marcel Duchamp and John Cage* (privately published by Takeyoshi Miyazawa, undated, limited edition of 500 copies).

7. L. Cross, “The Stirrer,” *Source, music of the avant garde*, Issue No. 4 (1968), pp. 25-28.

8. L. Cross, “Electronic Music, 1948-1953,” *Perspectives of New Music*, Vol. 7, No. 1 (1968), pp. 32-65.

9. Tomkins [1], pp. 410-411.

10. Tomkins [1], p. 411.

11. Tomkins [1], p. 289.

12. Mr. Wally Plahutnik, the wine merchant for John’s Grocery, Inc. in Iowa City carefully inspected the label seen in Shigeko Kubota’s photographs and confirmed that the château where this 1964 Margaux was produced was indeed Château Kirwan.

13. The only work heard during *Reunion* that was released as a recording was my electronic tape music, *Video II (B) / (C)*, issued on stereo LPs as Source Records No. 5 (1971); and released again on CDs, Source Disc Three, Pogus Productions 21050-2 (2009). The “live electronic” pieces performed by Behrman, Mumma, and Tudor on March 5, 1968 were ephemeral, never to be heard again as they were on that evening. However, the entire event was recorded for possible, but unrealized, release by CBS/Columbia (David Behrman, producer); the present location and condition of the master tapes are unknown.

14. John Cage, “Experimental Music,” in *Silence* (Middletown, CT: Wesleyan University Press, 1961), p. 12.

15. *The Toronto Star* (March 6, 1968).

16. *The Toronto Telegram* (March 6, 1968).

17. Nathan Rubin (1929-2005), *John Cage and the Twenty-six pianos of Mills College: Forces in American Music from 1940 to 1990* (Moraga, CA: Sarah's Books, 1994); telephone conversation, David Behrman and the author, April 19, 2004; email correspondence between Gordon Mumma and the author, April 22 & 24, 2004; email from Naomi Sawelson-Gorse to the author, April 26, 2004; email from Laura Kuhn and Kenneth Silverman to the author, April 27, 2004; and internet web searches.

18. William Gedney (1932-1989) made a large number of photographs of Cage and others at the Electric Circus performance on May 27, 1968. They are housed in the Special Collections Library at Duke University, Durham, NC.

<http://scriptorium.lib.duke.edu:80/dynaweb/gedney/photographs/composers/>.

Click on "Work Prints" then on "Cage, John."

19. Tomkins [1], pp. 18, 449-450.

20. Slonimsky [2], 8th ed. (1992), p. 282.

21. Laura Kuhn, Executive Director of The John Cage Trust, email correspondence to the author, December 3 & 4, 1998. The original *Reunion* chessboard is the property of The John Cage Trust.

22. Teeny Duchamp's birthdate and birthplace were confirmed to me by her children, Jacqueline Matisse Monnier (via fax) and Paul Matisse (via telephone), 2 September 1999.

23. Calvin Tomkins, fax correspondence to the author, May 20, 1998.

24. Allan Kozinn, "David Tudor, 70, Electronic Composer, Dies" *The New York Times*, Obituaries, (Thursday, August 15, 1996);

http://www.getty.edu/research/conducting_research/digitized_collections/davidthudor

<http://www.fzmw.de/2001/2001T1.htm>

<http://www.LowellCross.com/articles/tudor>.

25. <http://brainwashed.com/mumma>.

26. David M. Cummings, ed., *International Who's Who in Music and Musicians' Directory*, 15th ed. (Cambridge, UK: International Biographical Centre, 1996), p. 65.

27. <http://composers21.com/compdocs/crossl.htm>

<http://www.LowellCross.com>.

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Before and after the publication of my articles on *Reunion*, I received inquiries about its possible documentation on film, video, and/or audio recordings. There was the presence

onstage and backstage in the Ryerson Theatre of many “media” technicians, and I knew about David Behrman’s plan to have the event recorded on audiotape for CBS/Columbia Records, to be engineered by Toronto personnel. Behrman was a producer at the time for CBS/Columbia with an emphasis on music of the present day. The beginning and the ending of *Reunion* (about 4½ hours apart) from the CBS/Columbia recording may be heard on the flimsy Eva-tone 5 inch / 13 cm stereo LP record bound with the Cage/Kubota picture book, *John Cage and Marcel Duchamp*, or the CD release made from it, EMF Media EM121. Behrman himself is unaware of the whereabouts or existence of the original recording. That Eva-tone disk and the CD transfer are the only recordings or other documentation available today of the event except for Shigeko Kubota’s photographs in the picture book. I was not aware of the decision by CBC Television in Toronto to videotape the event until Gordon Mumma and I began to set up the chessboard and other equipment in the late afternoon of March 5, 1968. All appeals to the CBC in Toronto – by film and video archivists and by me – have failed to produce even a reply about the existence or non-existence of the videotape from that evening.