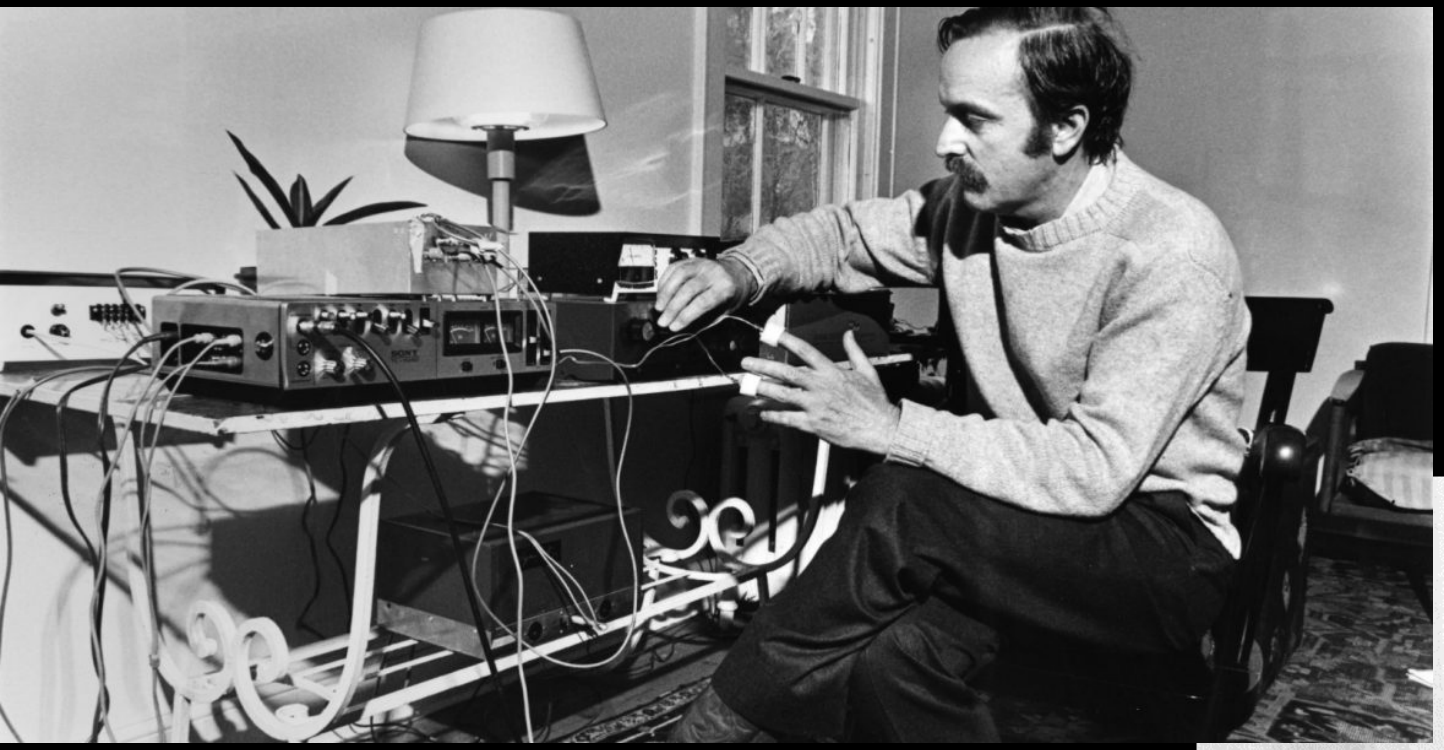
AHST 4342-501 (27532)
History of Media and New Media Art
Spring 2018
Dr. Charissa N. Terranova
University of Texas at Dallas
Arts & Humanities
T-Th 1:00-2:15

Thursday 03/01/18

Discussion

Sound and Algorithms: Between Alvin Lucier and John Cage



Alvin Lucier (1931-)

John Cage (1912-1992)

Alvin Lucier (1931-)

- Born in Nashua, New Hampshire
- Educated in Nashua public and parochial schools, the Portsmouth Abbey School, Yale, and Brandeis and spent two years in Rome on a Fulbright Scholarship
- From 1962 to 1970 he taught at Brandeis, where he conducted the Brandeis University Chamber Chorus, which devoted much of its time to the performance of new music.
- In 1966, along with Robert Ashley, David Behrman and Gordon Mumma, he co-founded the Sonic Arts Union.
- From 1968 to 2011 he taught at Wesleyan University where he was John Spencer Camp Professor of Music.

"If you listen to Beethoven, I guess you're listening to what Beethoven is giving you in time – how it moves from point to point, key changes, modulations and stuff like that. In my music, you have to concentrate on one or two things … one thing actually. I've been told that listening to it is paying attention to how you're listening. It's contemplative."

Alvin Lucier

SELF-REFLEXIVITY

Sonic Arts Union

The Sonic Arts Union was a collective of experimental musicians that was active between 1966 and 1976. The founding members of the group were Robert Ashley, David Behrman, Alvin Lucier, and Gordon Mumma, all of whom had worked together in the instrumental performances of the ONCE festivals. They initially toured under the name Sonic Arts Group, until, at Ashley's suggestion, the name was changed to Sonic Arts Union.

Inspired by the success that John Cage and David Tudor had in touring and designing their own equipment, The Union toured Europe and the United States, though each contributor was performing his own work, either by himself or occasionally with help from other members where required. On some tours, the Union expanded to include Mary Ashley, Shigeko Kubota, Mary Lucier, and Barbara Lloyd, who contributed their own works. The element uniting these individual works, according to David Behrman, was the desire to create pieces "in which established techniques were thrown away and the nature of sound was dealt with from scratch."

Alvin Lucier (1931-)
WORKS

- North American Time Capsule (1967) https://www.youtube.com/watch?v=zV0PMhAerpQ&t=89s
- I am Sitting in the Room (1969) https://www.youtube.com/watch?v=fAxHlLK3Oyk
- Music on a Long Thin Wire (1980) https://www.youtube.com/watch?v=dwE4Jwk_zeI
- Music for Piano with Magnetic Strings (1999) https://www.youtube.com/watch?v=cVHdCSuhQcM

"If you listen to Beethoven, I guess you're listening to what Beethoven is giving you in time – how it moves from point to point, key changes, modulations and stuff like that. In my music, you have to concentrate on one or two things … one thing actually. I've been told that listening to it is paying attention to how you're listening. It's contemplative."

Alvin Lucier

SELF-REFLEXIVITY

Student Questions:

How does Lucier convey meaning through sound without language?

How can we understand Lucier’s North American Time Capsule as not just noise but art?

What is a VOCODER?

VOCODER

Demonstrations:
https://www.youtube.com/watch?v=rkzLdOSraGc

https://www.youtube.com/watch?v=xgjAg9bMvYo

The word “vocoder” is a portmanteau of “voice” and “encoder.” It was invented by Homer Dudley, a telephone engineer at Bell Labs, in 1928. Through a machine, the voice is deconstructed into information, reconstructed into sound, and compressed for communication.

The vocoder examines speech by measuring how its spectral characteristics change over time. This results in a series of signals representing these modified frequencies at any particular time as the user speaks. In simple terms, the signal is split into a number of frequency bands (the larger this number, the more accurate the analysis) and the level of signal present at each frequency band gives the instantaneous representation of the spectral energy content. Thus, the vocoder dramatically reduces the amount of information needed to store speech, from a complete recording to a series of numbers. To recreate speech, the vocoder simply reverses the process, processing a broadband noise source by passing it through a stage that filters the frequency content based on the originally recorded series of numbers. Information about the instantaneous frequency of the original voice signal (as distinct from its spectral characteristic) is discarded; it was not important to preserve this for the purposes of the vocoder's original use as an encryption aid. It is this "dehumanizing" aspect of the vocoding process that has made it useful in creating special voice effects in popular music and audio entertainment.

Does Lucier deploy “constraints” in his work? If so, how?

Student question:
Is Alvin Lucier a fan of Hatsune Miku?

https://www.youtube.com/watch?v=pEaBqiLeCu0

Student questions:

Does the NATC broaden the spectrum of music culture or does it clash with it?

Lucier’s work – Music or Not?

Who is Robert Moog? What is a Moog?

Robert Moog (1934-2005)

- Moog was an American engineer and leading figure in the molding and creation of electronic music.
- He invented the Moog synthesizer.
- The Moog is an analog synthesizer based on the technological development of the transistor.
- The transistor made it easy for Moog to build small and inexpensive electronic music systems that were lighter in weight and more reliable than vacuum tube-based systems.
- Company founder Robert Arthur Moog had begun manufacturing and selling vacuum-tube theremin in kit form while he was a student in the early 1950s and marketed his first transistorized theremin kits in 1961.
- Dr. Moog began to develop the experimental synthesizer that would become known as the Moog in 1964.
- Dr. Bob Moog demonstrates his synthesizer: https://www.youtube.com/watch?v=0z0cbMkOvY0
- Classical Music via Moog: https://www.youtube.com/watch?v=m-TgvSJJdis

Student question:

Does music need to have an intended meaning to be meaningful?

Professor’s related question:

What is the role of human will and intention in Alvin Lucier’s music practice?

How do we understand meaning in Lucier’s work?

Student writing:

Lucier’s works represent humanity in all its pain and glory. The NATC floods the listeners eardrums like a baby unwittingly thrust into the world: an angry cacophony of fax machine-like screeches and garbled tonalities that almost bear resemblance to human speech…Lucier’s pieces remind us that we are but small, uncomfortable beings, attempting to communicate with other small, uncomfortable beings to the best of our abilities, sometimes successfully, sometimes not.

What is a theremin?

Theremin

A theremin is an electronic musical instrument controlled without physical contact by the thereminist (performer). It is named after the Westernized name of its Soviet inventor, Leon Theremin, who patented the device in 1928.

Leon Theremin playing his instrument: https://www.youtube.com/watch?v=w5qf9O6c20o

Student question:

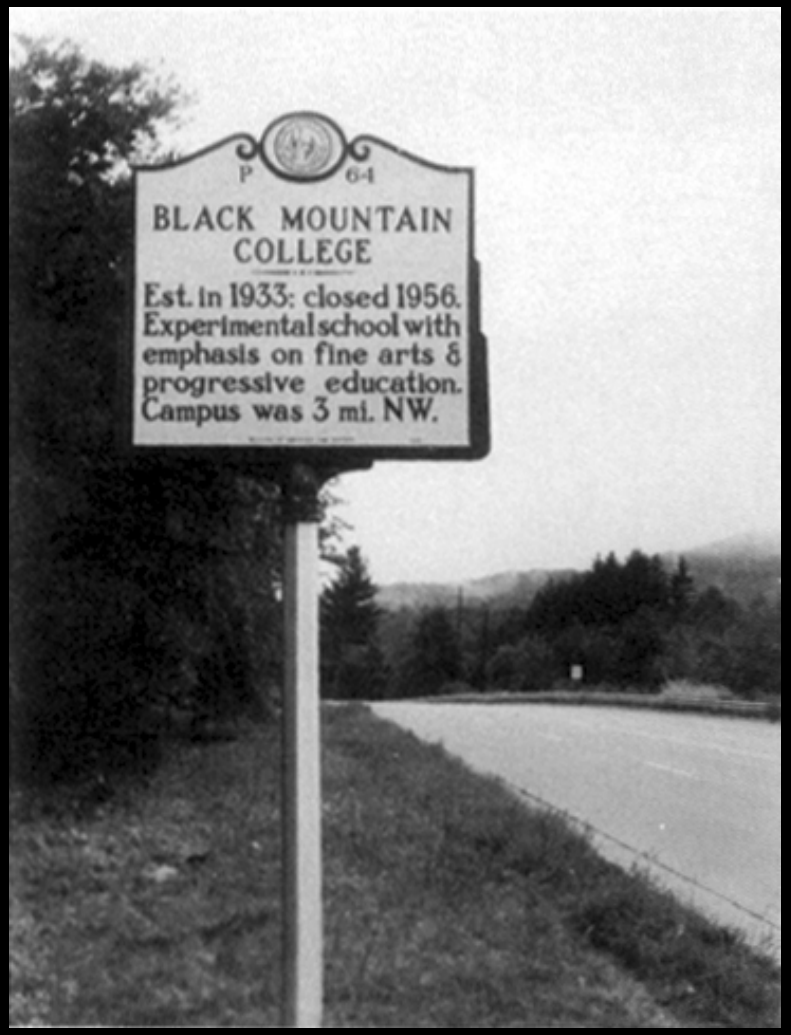
As a classically trained musician, what changed Lucier's mind about utilizing timbre, rhythm, melody and other traditional elements of music theory to electronic music? Was it due primarily to the influence of Cage, Tudor and Lamonte Young?

Student question:

What is “memory” to Lucier, and is his work counterproductive to a traditional idea of “memory”?

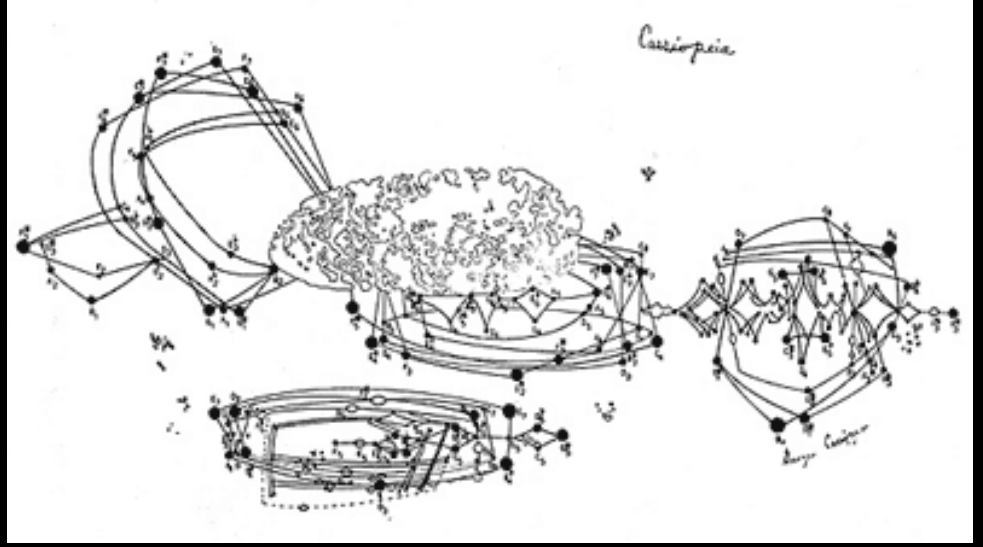
John Cage (1912-1992)

- Born in Los Angeles to John Milton Cage, Sr., an inventor, and Lucretia ('Crete') Harvey, an amateur artist and occasional journalist for *The Los Angeles Times*.
- Worked during the heyday of Abstract Expressionism
- Honed his skills in the midst of the growing American avant garde. Neither a painter or a sculptor,
- Incorporated unconventional instrumentation and the idea of environmental music dictated by chance.
- Approach to composition was deeply influenced by Asian philosophies, focusing on the harmony that exists in nature, as well as elements of chance.
- Famous not only for his radical works, like *4'33"* (1952), in which the ambient noise of the recital hall created the music, but also for his innovative collaborations with artists like Merce Cunningham and Robert Rauschenberg.
- These partnerships helped break down the divisions between the various realms of art production, such as music, performance, painting, and dance, allowing for new interdisciplinary work to be produced.
- Cage discovered that chance was as important of a force governing a musical composition as the artist's will, and allowed it to play a central role in all of his compositions. Although each piece has a basic, composed structure, the overall effect varied with each performance as different variables like the location and audience directly affected the sounds that were produced.
- By breaking with the historically determined preconception that music was made by musicians using traditional instruments to perform structured and prearranged compositions, Cage opened up a new wealth of possibilities within modern art. His revolutionary performances ushered in an era of experimentation in all media and shifted the focus away from the artist's inner psyche to the artist's contemporary environment.
- Cage focused his compositional career on the incorporation of unconventional elements such as kitchen gadgets, metal sheets, various common objects, and even silence into his works to change the way modern audiences listened to music and appreciated their surroundings.
- Taught a groundbreaking courses on composition at the New Bauhaus, Black Mountain College, and The New School in NY
- Many artists, such as R. Rauschenberg, E. Kienholz, and members of the Fluxus group, too Cage’s course in experimental composition at The New School, which he taught from 1956 to 1961.

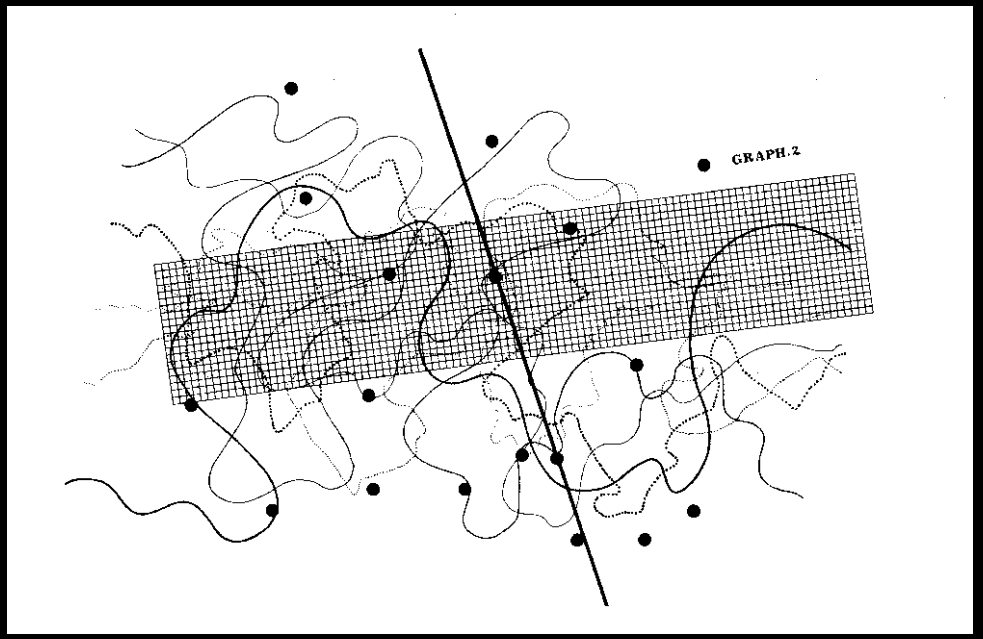


John Cage, David Tudor, Robert Rauschenberg, et. al., Theater Piece No. 1, 1952
Robert Rauschenberg, White Painting (Seven Panels), 1951

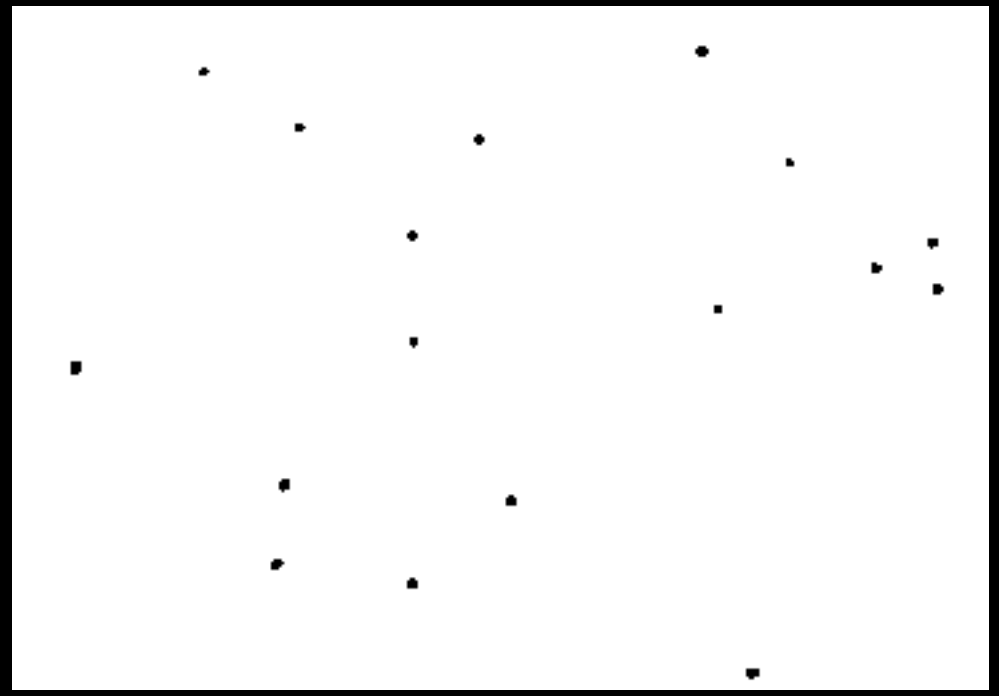
John Cage, New School for Social Research, 1956-1960

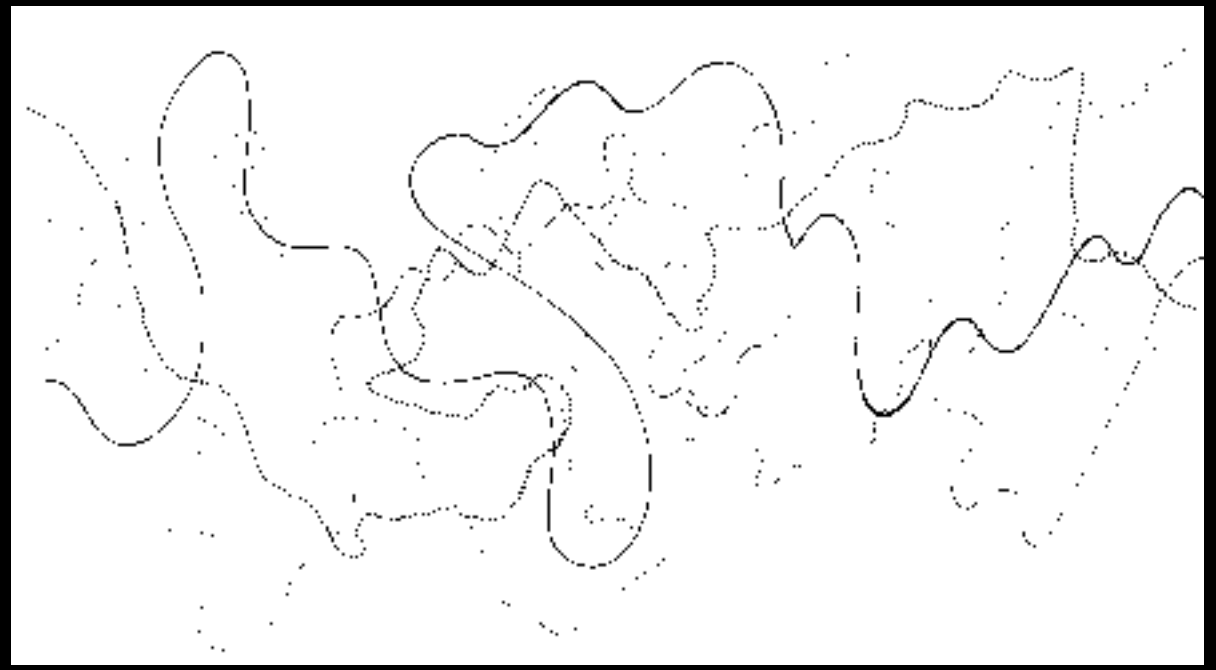


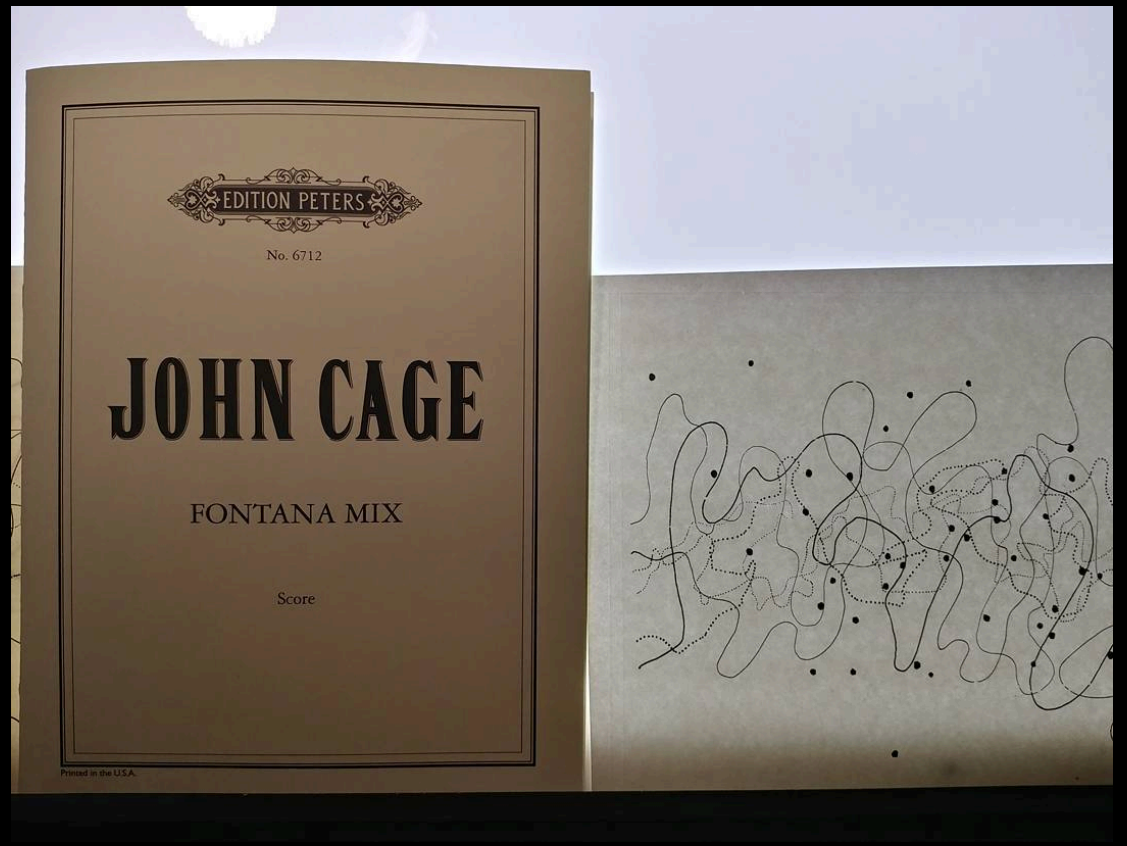
George Gacioppo, Cassiopeia, sound pictogram, 1962



John Cage, Fontana Mix, sound pictogram, 1958





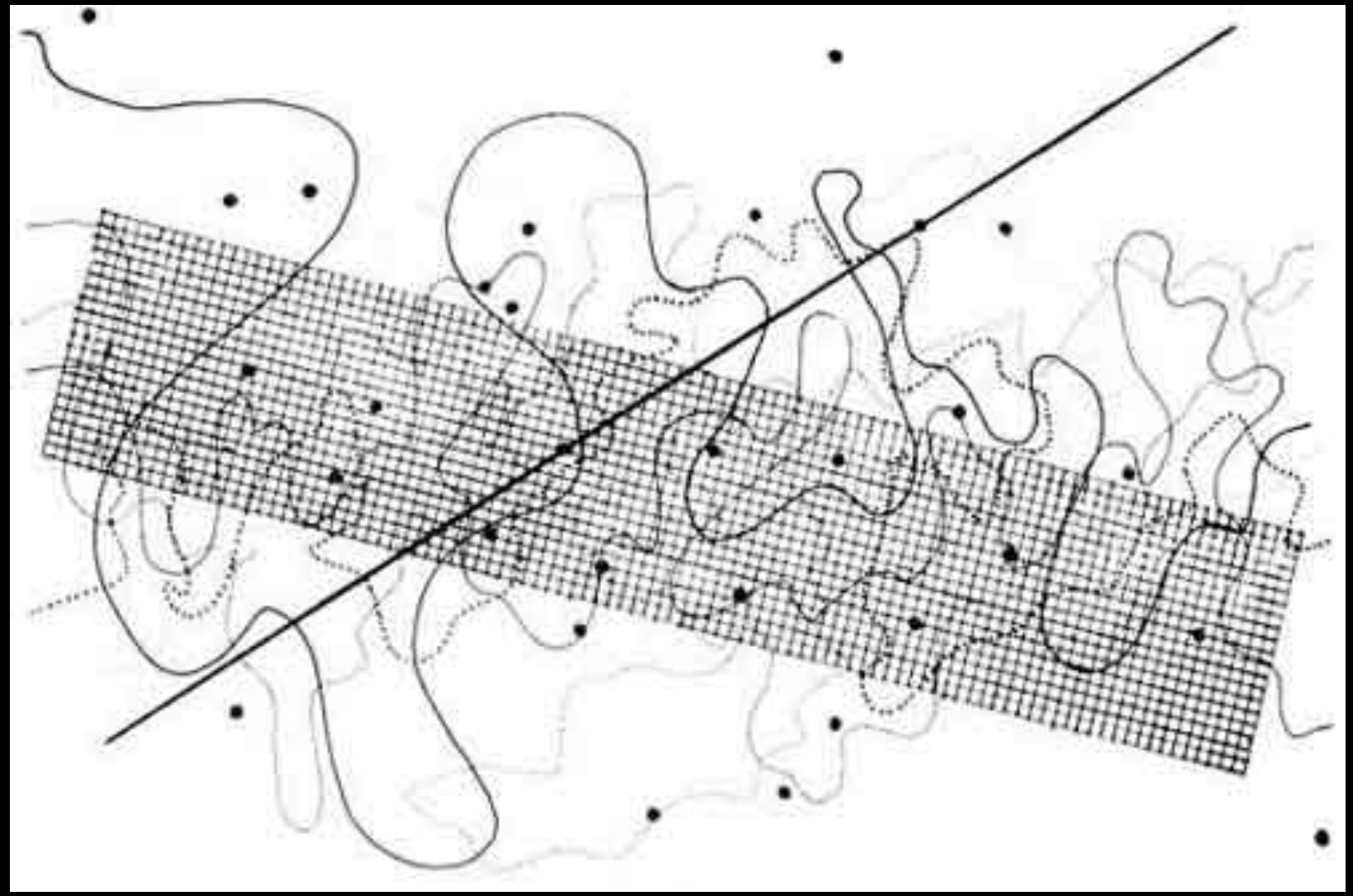


Artist: John Cage

Title: “Fontana Mix”

Date: 1958

Details: Experimental musical composition



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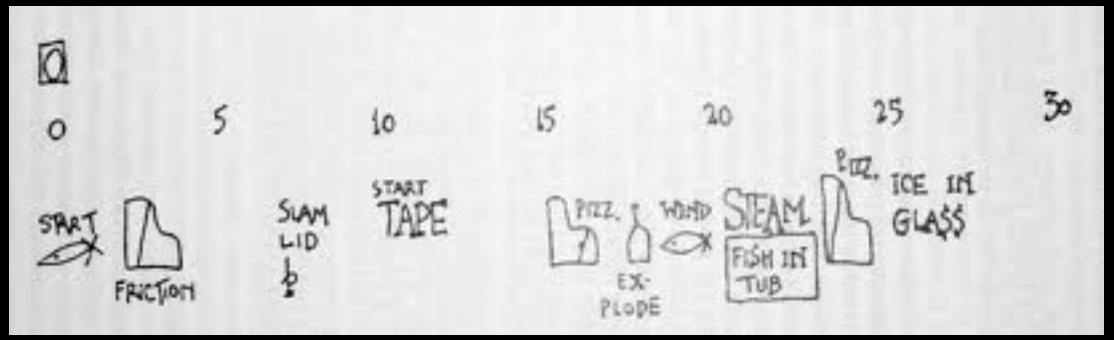
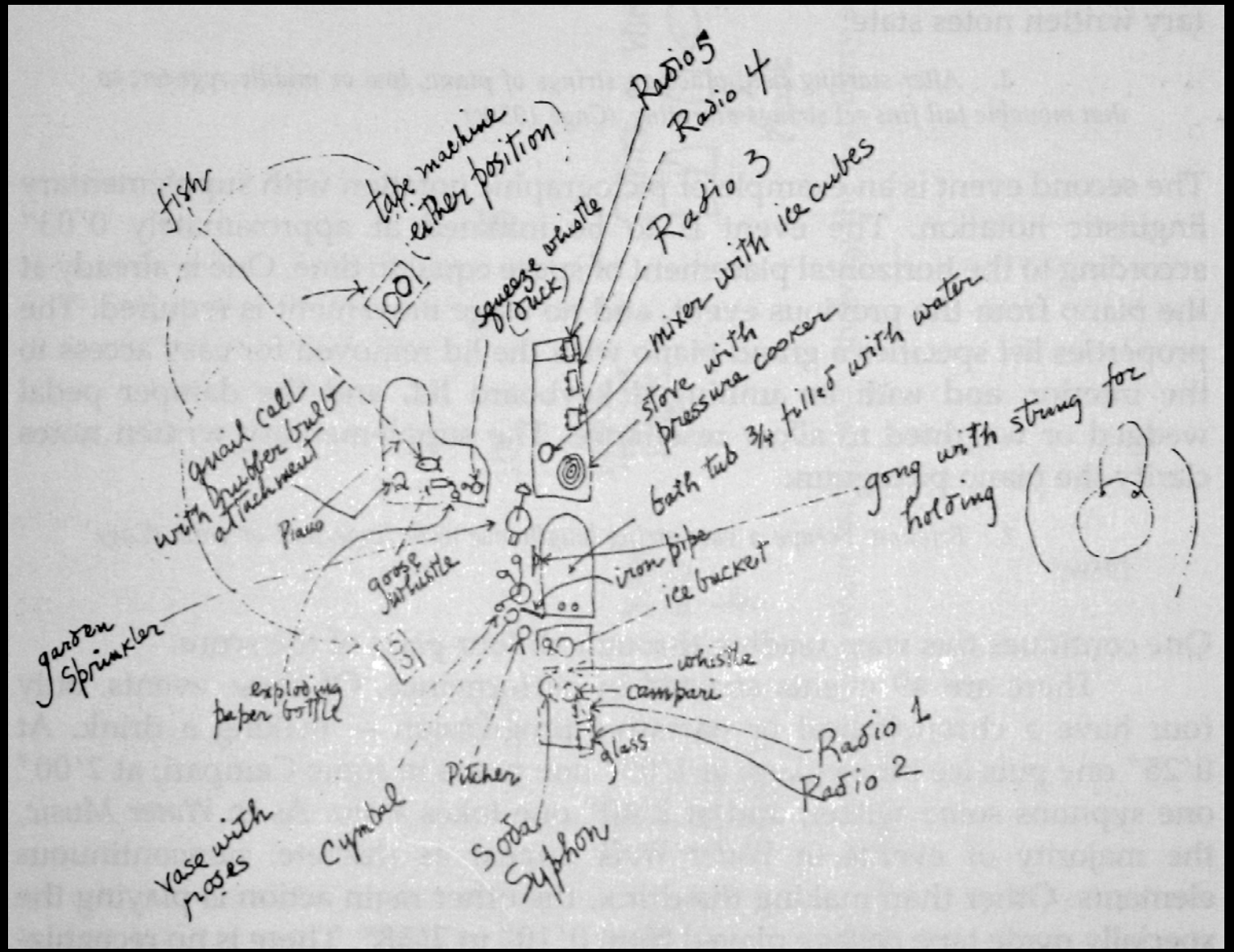


John Cage performing "**Water Walk**" in January, 1960 on the popular TV show I've Got A Secret: https://www.youtube.com/watch?v=gXOIkT1-QWY

Contemporary version of John Cage Water Music (1952): https://www.youtube.com/watch?v=h_ik4VMcLkA



http://www.youtube.com/watch?v=SSulycqZH-U