

Introduction to Electronic Music

183, 184

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Nicolas Collins

1002A Hewitt

[Box 642]

Electronic Music 183, Mr. Alvin Lucie

Much more [war-aid] given to German, and other European countries by U.S. ~~com~~ while U.S. composers were unsupported in studio equipment.

Electronic Music? Electronic environment. Any thing recorded or surrounded by, electronic environment [air conditioners].

Brahms makes object: beginning, middle, end.
Art and artists predict what's going to happen, predict and understand change

Understanding "electronic change" before it came about, was made practical: John Cage. —

Tape did not exist before WWII ~~and~~ could not explore electronic sounds before. Around turn of century (1889-1905) began to experiment with electronic sound producers — Theremin, ondes martinet.

— In 1937, Cage predicted recording electronic music. Wrote a piece ('39?) for electronic instrument — oscillator — and piano, in traditional notation.

Then a piece for L.P. oscillator recording, oscillator, and piano.

Then tape arrived. Whole medium opened up. Can record any sound on tape. Idea of piece not limited by orchestral instrumental sounds. Opened up sound world: direct access to sound. Now could use ~~any~~ any noise at all. Collage.

Lucier ^{undergraduate} in school 1950-1954. Worst time in 100 years for education: Anti-intellectualism, anti-university — McCarthyism, Constricted, technical, uptight. Big thing was Schoenberg [Austria], 12 tone scale; dark, depressing and of the world stuff. Students all writing boring, stupid, lurid, imitations of Schoenberg.

Ignored Cage's concert, went on Fulbright to Italy; Young composers writing Schoenberg in/after 20 years. But Cage showed up and shook them up. Didn't need to dig into another (French-German) culture ~~movement~~ for music. Total opening up to wonderful, terrifically fantastic music.

1965 opened up to Alpha/Brain wave work. Invited Cage to participate in concert that spring. Electrodes, high gain amplifiers [DC], twelve speakers that stimulated percussive instruments [Alpha is low frequency, event] Cage worked amps, mixing. Very quiet piece, in the dark. Chairman of Music dept. gave a hotfoot to the other jerk — had no enthusiasm at all. Cage had impulse — do it now!

Cage had problem of how to explain his pieces. Was a funny man; thought art should be funny. How should he give a talk? Would tell jokes, stories, anecdotes. Found David Tudor, best ^{young} pianist in the world. Could play anything. Fantastic collaboration.

Once ~~was~~ electronically realized accompaniment for Cage's stories at one talk he gave.

"An old shoe would look beautiful in this room."

Everything has its place in art. Everything opens up.

Taking in environmental sounds - playing piano piece with street noise coming through window.

Anechoic room. No silence; high and low μ sounds (nervous system, bloodstream).

No silence. If you are open, you hear, begin to hear sounds of the environment. No such thing as no sound.

What you don't learn in school. An emptying.

Silence, by John Cage

A Year from Monday, by John Cage.

~~5 books to read~~

→ Cage, Christian Wolff, post-war composers, Europeans, contemporaries // // // projects →

9/6 Electronic music or electronic inspired. Electronic/electric environment.

Origin of electronic music: John Cage

Before WWII, center of Art [visual] was France, both culturally, and economically. During and after war, painting boomed in U.S.A. — abstract, N.Y. artists. Discovered an energy that didn't have to rely on Europeans. Ideas of painting — how you paint — were totally different. Action Painters — act of painting as important as the final product. Different environment. Pollack. Very physical. Painting [product] is what happened because of the process.

N.Y. School. Had done other, European-style painting. Then big change. Terrific energy. Located in East Village. Cage and Morton Feldman were also working down there with Pollack, Kline, De Kooning, Guston.

Artists can do what they want. Can throw away [to an extent] the past. ~~then~~

Composers can't be as physical as artists, painters. Except with tape. So it becomes more closely involved with Action Painters.

Christian Wolff. Son of editor, high class German family. Was a pianist, wanted to be a composer. Found Cage (around 1950) and studied composition with him. Very strange. Then one day Wolff's father published German edition of I Ching, ~~the~~ Chinese book of Oracles. Chance leads to account of the way things are. Idea of chance and simultaneous, non-cause and effect events. Somewhat similar to action painting.

Check it out:

overtone series on wolf-cries.

altering for purposes of communication.

wolfs can hear large overtone series, extended series,
can identify each other by overtone structure.

Cage wrote a piece where decisions about "certain things" — pitch, timbre, instrumentation, rhythm, etc. — were made found in I Ching. Aleatory music or "indeterminacy." Composer takes himself out of the position of composer; anti-imperialist point of view — art comes from where it is. Expands experience, areas to be experienced, because of the removal of personal choice, and replacement with chance.

Europe:

Here musicians were getting more determinate, rather than indeterminate. Schoenberg and 12-tone system, all notes are equal. Opposite of tonality; atonality. In order to maintain equalness of notes, ~~the~~ [atonality], had to organize. Tone row and permutations. Organization of pitch, rhythm, rest, instrumentation, technique, ^{octave} _{timbre.} Pre-determined, pre-planned before actual process of composition. Total organization.

So: Cage, U.S.A. and indeterminacy vs. European Determinacy.

Recording: Indeterminacy

In electronic world, you can listen to many things at once. More complicated people. Air conditioning. His talk and the sounds [Tudor electronically realized an early, indeterminate work of Cage, done with concrete sounds.

No such thing as boredom.

9/12 Cage functions in a non-linear way.

Classic era (Haydn, Mozart) produced clear linear pieces.
Form of the sonata: Had a key, chose it for a reason — E \flat is strong, D \flat quiet and soft, F is neither here nor there —; starts and ends in that key. Important relationships: the ~~III~~, V, IV.

→ that civilization based on conquering natural world; don't let sound stand on its own, exist naturally. "Colonialism." Build the art. ←

so don't let the tonic drop down [naturally] a fifth to the subdominant, but go up to IV, conquer the natural force.

Theme A, often repeated, then theme B, then repeat both. Then development of ideas of A and B in any keys. Then return to A and B, but both in the tonic — recapitulation. Can add a coda; descent to IV, then back up to tonic. A B: all development | recapitulation | coda. Very linear!

Cage and others say we are in our environment, perceive more than one thing at once. Because of media, electronic environment, we think in a non-linear ~~sideways~~ way.

I Ching. Non-cause-and-effect. Occurs at a certain point in time, influenced by other things going in on at the same time. No thing has nothing to do with something going on at the same time. Sideways. Instantaneous.

The pieces: some of them you can start anywhere — instantaneous, non-linear; no sense of time, sound is more important.
"Zero-time"

I Ching, Zen, electronic media: main problem people have

listening to music is that of Zero-time. New thinking.
You don't conquer sound.

Story: Lucien performs Cage piece for ~~amplified~~ amplified
by piano's. Indeterminate score — transparencies
to be superimposed and drawn on for various parameters.
Made it 20 minutes long — stopwatch, Had an attack of
guilt, anxiety, in the middle of the piece. ^{actually, after just one minute} Caught in time and
space [sound was mixed all over hall]....

→ No sense of home. No anxiety to return home
[Tonic] in contemporary environment ←

was embarrassed, wanted to leave but kept going. Not
improvisation — improvisation is recalling the past, patterns —,
but stuck to the score. Maintain the indeterminacy. Got into
the material so deeply that time sensed changed completely,
19 minutes went by as 1.

Art is not on the page, length of real time of the LP, but rather
is the question of psychological time [Information theory]

Cage is very pure

Lucie: random belongs to Cage. Lucie works with giving
players a practical situation to work with/in.

Cage was a beautiful pianist. California born and raised;
dropped out of Pomona. Tried out architecture school in
France — didn't want to draw cathedrals, dropped
out. Studied with Schoenberg, who said he was a great
student but no composer. He 35-38 became interested
in East, but blew it sometimes by writing for
the instruments but not the thought philosophy.

Then began working with instruments without determinate

pitch - drums, percussion, ?...

→ Amores, ~~with prepared piano and percussion~~ [tom-toms, pod rattle] 1943*

→ I prepared piano

→ II percussion - 9 tom-toms, pod rattle

→ III wood blocks (not chinese)

→ IV prepared piano

Somewhat
exotic

complex rhythmic schemes. linear [before I Ching]

precise score, conventional ←

→ Double Music (with Lou Harrison) 1941

metal

Water buffalo bells


Exotic. Javanese influences

Brake drums

Thunder sheets

once again, complex rhythmic patterns: duration/structure
of smallest segment of piece is model of entire structure - old
idea, but new material. No 19th century emotional, romantic
quality. ←

* from Concert Percussion for orchestra, Cage, Cowell, Harrison
Riddan, Russell
Time 5/8000

Check it out: splice tape sideways:  fig

~~APPI~~
I prepared frame
II preparation - 4 town-towns box with
III wood blocks (not chairs)
IV prepared frame
Complex rhythmic schemes linear structure
Process score conventional

APPI (no music) (with for Harrison) 1941
Water for Fall Walls
Break chairs
Thunder sheets

complex rhythmic patterns
of smallest segment of piece is model of entire structure - old
idea but very material No 1000 chairs
quality

from Concert Percussion for orchestra (Cape Cod, Harrison)
Robert Russell
Time 3/2000

9/14 Staggering. Opens things up. Irritation. Destruction of pre-conceived ideas. Continual surprise.

→ Baker's Biographical Dictionary ←

Studied with Schoenberg, but "had no ear for traditional music."
Pushed him into other things.

→ Cage always does the most efficient thing. ←

Oriental influence. Used percussion. Didn't want to carry around all the percussion — inefficient — so used prepared piano. Became his gamelan. Then used electronic sound (most efficient).

No studios in America, unlike Germany and Italy. So started with some tape machines. Found objects — Duchamp; musique concrète. Paris 1948.

Cage defined some sounds for a piece: City, country. Within each, several categories: sounds made by: air, hard objects, etc. Made a visual score — X axis in respect to time. 6 channel piece. How to slice the sounds.

→ Irony in tape: permits electronic work, but is dead.

Cage anticipated this problem. Made a score so the piece could be rerecorded, told people how to splice (attach and decay) ←

Working with tape allows greater exploration of sound characteristics, opening up of sounds.

William's Mix — wait! ¹⁹³⁷⁻³⁹ ~~1937-39~~ Imaginary Landscape # 1 used oscillators + tapes of Bell telephone discs [Stockhausen said that he invented that electronic music] Rather crude piece. Recorded live, 1953.

now → Williams Mix Paul Williams. Stony point,
N.Y. "Artist colony," 1951 on 52 ←

→ Fontana Mix. Transparent overlay score gave him splicing
outline. Incredible splicing work. Used as accompaniment for
Aria. Supersaturation of sound inputs. Recorded in
Milan. ←

Art doesn't have to please, make you happy or sad.

9/19

I Ching:

Simultaneous occurrences are bound to have something to do with each other; non-cause-and-effect, non-linear. In composition, no A-B-A. Anything/any sound can go with any other thing/sound.

→ Musical instruments no better for producing sound than anything else ←


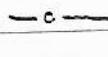


→ Merce Cunningham dance company, Simultaneous occurrences. Music did not have to accompany dance. Somehow great accidents ←

When Cage began using the I Ching, he brought in eastern philosophy, and left the timbre (Double Music) behind

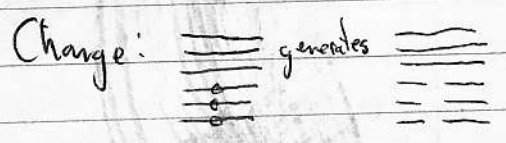
I Ching:

64 Hexagrams (combinations of lines) - 2 trigrams in each
6 lines: straight is positive, broken is negative. Each line can be in state of rest (remains the same) or change, generates another hexagram, with

Done with stalks (traditionally), but can be done with coins. (3)
Heads = Yin = 2 } ex: all tails = 9 (positive, change); all heads = 6 (negative, change)
Tails = Yang = 3 }

- 9 = positive, change 
- 6 = negative, change 
- 7 = positive, rest 
- 8 = negative, rest 

Build from bottom up.
Find diagram in I Ching



Cage decided:

Didn't use much of the imagery [one thing with imagery was Wonderful Widow of 18 Springs], as he saw it as exoticism, stealing; rather was interested in the indeterminacy. Wrote

Cage: directions for score of Fontana Mix

10 TRANSPARENT SHEETS WITH POINTS. 10 DRAWINGS HAVING SIX DIFFERENTIATED CURVED LINES, A GRAPH (HAVING 100 UNITS HORIZONTALLY, 20 VERTICALLY) AND A STRAIGHT LINE, THE TWO LAST ON TRANSPARENT MATERIAL.

PLACE A SHEET WITH POINTS OVER A DRAWING WITH CURVES (IN ANY POSITION). OVER THESE PLACE THE GRAPH. USE THE STRAIGHT LINE TO CONNECT A POINT WITHIN THE GRAPH WITH ONE OUTSIDE.

MEASUREMENTS HORIZONTALLY ON THE TOP AND BOTTOM LINES OF THE GRAPH WITH RESPECT TO THE STRAIGHT LINE GIVE A 'TIME BRACKET' (TIME WITHIN WHICH THE EVENT MAY TAKE PLACE) (GRAPH UNITS = ANY TIME UNITS).

MEASUREMENTS VERTICALLY ON THE GRAPH WITH RESPECT TO THE INTERSECTIONS OF THE CURVED LINES AND THE STRAIGHT LINE MAY SPECIFY ACTIONS TO BE MADE. THUS, IN THE CASE OF (FONTANA MIX) TAPE MUSIC, THE THICKEST CURVED LINE MAY GIVE SOUND SOURCE(S) WHERE THE LATTER HAVE BEEN CATEGORIZED AND RELATED QUANTITATIVELY TO 20. (IN THIS CASE, THE 2 POINTS CONNECTED BY THE STRAIGHT LINE MUST PERMIT THE LATTER TO INTERSECT THE THICKEST CURVED LINE.) INTERSECTIONS OF THE OTHER LINES MAY SPECIFY MACHINES (AMONG THOSE AVAILABLE) FOR THE ALTERATION OF ORIGINAL MATERIAL. AMPLITUDE, FREQUENCY, OVERTONE STRUCTURE MAY BE CHANGED, LOOPS AND SPECIFIC DURATIONS INTRODUCED.

MEASUREMENTS MADE MAY PROVIDE ONE OF A NUMBER OF PARTS TO BE PERFORMED ALONE OR TOGETHER. IN MAKING TAPE MUSIC, AVAILABLE TRACKS MAY BE LESS IN NUMBER THAN THE TIME BRACKETS GIVEN BY MEASUREMENTS. FRAGMENTATION IS THEN INDICATED.

THE USE OF THIS MATERIAL IS NOT LIMITED TO TAPE MUSIC BUT MAY BE USED FREELY FOR INSTRUMENTAL, VOCAL AND THEATRICAL PURPOSES. THUS, AFTER A PROGRAM OF ACTION HAS BEEN MADE FROM IT, IT MAY BE USED TO SPECIFY A PROGRAM FOR THE PERFORMANCE OF THE OTHERWISE UNCHANGING MATERIAL. WHERE POSSIBLE TECHNICALLY THIS CAN BE NOT ONLY SIMPLE CHANGES OF TIME (STARTING, STOPPING) BUT ALSO ALTERATIONS OF FREQUENCY, AMPLITUDE, USE OF FILTERS AND DISTRIBUTION OF THE SOUND IN SPACE.

Music of Changes [I Ching: Book of Changes]. Not thinking of variation, development, A-B, etc., but of Changes. Profound idea. Principles. 40 difficult minutes.

Composed on staves, with pitches. But ordering, duration, silences determined by I Ching. Instead of Imagery, gave numbers 1 to 64 to Hexagrams, used numbers to determine the parameters/qualities

Indeterminacy; also: imperfections in paper, transparencies
~~Unrepeatable~~ Unrepeatability of the art.

→ Fontana Mix, by John Cage, performed by Max Nechaus, for feedback on percussion (contact mikes).....

Enharmonic series

Musical changes / T changes / Musical development / A.A. etc. out of changes / ideas / principles / difficult / minutes.

(compared our steps with plates / by ordering / better / determined by / T / instead of / instead / gave / numbers / to / the / numbers / used / numbers / to / determine / the / parameters / qualities.

I / also / in / paper / also / importance / of / the / art.

→ Fontaine / Mire / de / John / Cage / performed / by / Max / Weber / for / feedback / on / exercises / (constant / notes).

9/21 Using sine wave generators, build artificial timbres, enharmonic series on fundamental.

9/26 Synthesizers as small contained studio

→ Arp hours: Ron Goldman is There: Mon 4-6:30,

Room 227 Sci. Tower.

Wed. 8-10 P.M.,

Box 78

Fri. 4-6:30.

Think about Cage.

Do a piece.

→ ~~to~~ Solo for Voice 2, by John Cage, transparency overlay score, as realized by Alvin Lucier, for 4 pairs of voices, electronically processed. 1968
"How odd," said Cage, during the mix.

→ piece to do:

Cartridge Music (1960) — phono cartridge as an electronic instrument

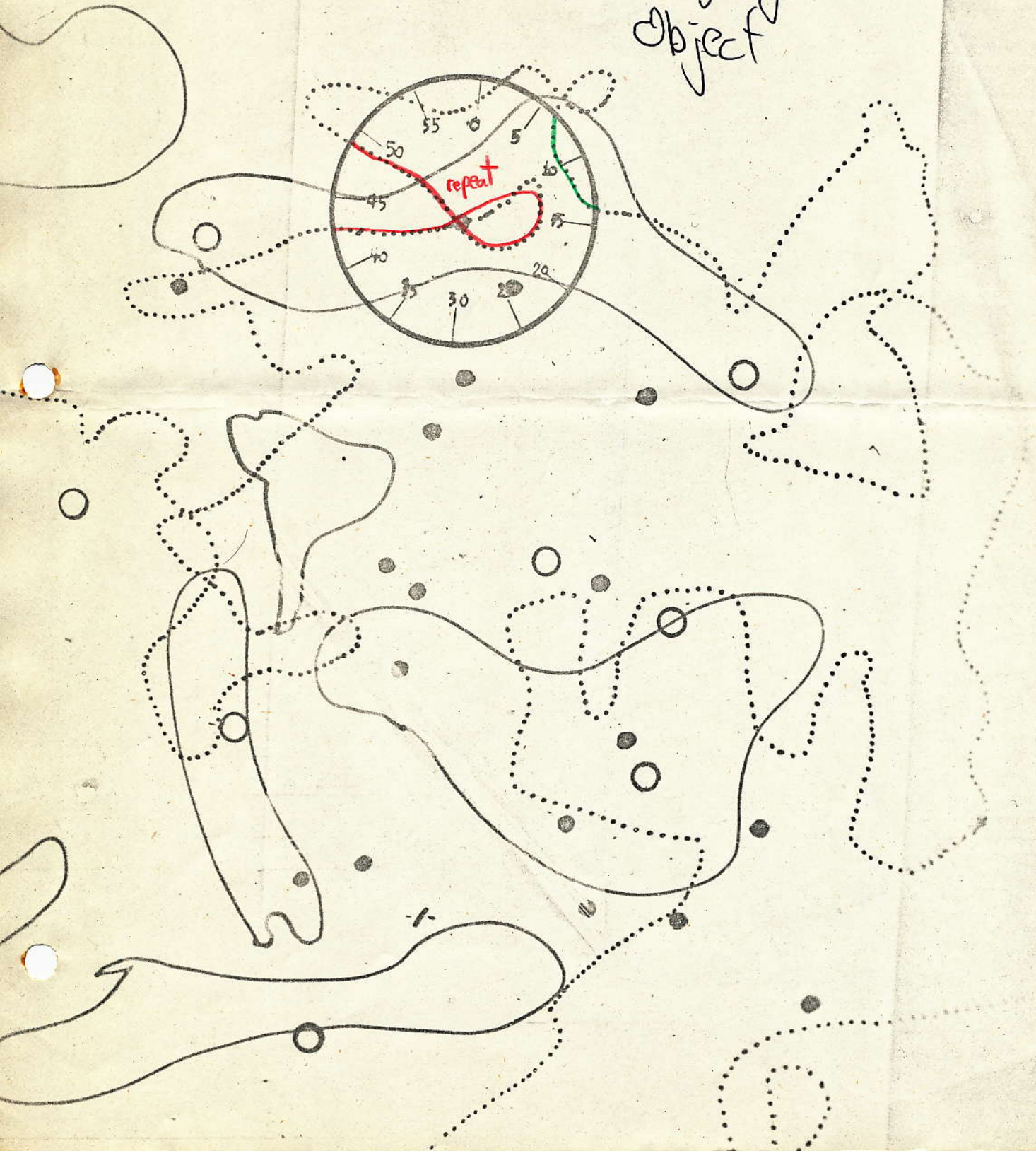
→ Hpscd — 5 letter limit in computer title — John Cage, Lejaren Hiller
Computer at University of ^{Illinois?} Indiana. Commissioned by
Analyzed envelope of harpsichord. For instrument(s) accompanied by
tape; 1-6 instruments, 1-51 tapes and channels. I-VI separate
pieces. Intro. to composition of waltzes by means of dice - Mozart.
6 solos based on various methods. Tapes generated by computer
imitating ~~attack~~ envelope of harpsichord; octaves with up to
64 ~~pitch~~ discrete pitches. I Ching used.

The version on record: 3 musicians, 15 tapes, score for home listener
(every one different) to control amp by [computer printout].

→ Source, on reserve in Sci. Library. Cage + Hiller

CHANGE

Change of
Object



9/28

Planning Cartridge Music

How to notate: U

Amplitude: line intersection with clock. Move gradually from one amplitude to another - free choice of which first - ~~doing for~~ duration of sound.

Tone: | intersection for treble, | for bass control.

Realize the part for Tuesday.

pipe cleaners



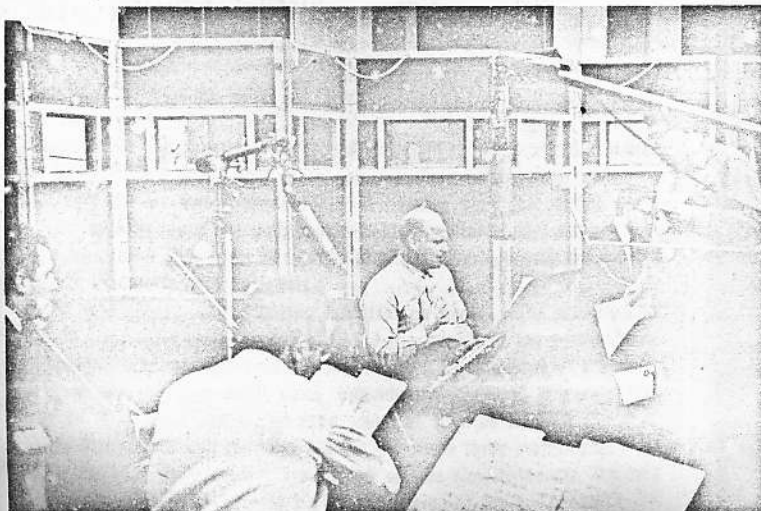
MORTON

1926

FELDMAN

My earliest recollection of music—I couldn't have been more than five—is my mother holding one of my fingers and picking out "Eli Eli" with it on the piano. Like almost everyone else, my early teachers were very bad. At the age of twelve, however, I was fortunate enough to come under the tutelage of Madam Maurina-Press, a Russian aristocrat who earned her living after the revolution by teaching piano and by playing in a trio with her husband and brother-in-law. In fact, they were quite well known in those days. It was because of her—only, I think, because she was not a disciplinarian—that I was instilled with a sort of vibrant musicality rather than musicianship.

I realize now that that image of Madam Press—a non-professional with all the ability and brilliance of the "pro"—that "dilletantism"—has always remained with me. She was a close friend of the Scriabines and so I played Scriabine. She studied with Busoni, and so I played Busoni transcriptions of Bach, and spent more time reading his footnotes than playing.



DAVID SOYER MATTHEW RAIMONDI DON HAMMOND DAVID TUDOR MORTON FELDMAN

The years passed almost identically, and with the same random quality of these opening sentences. I composed little Scriabine-esque pieces, gave up practising the little that I did, eventually abandoned my teacher and found myself at fifteen studying with Wallingford Riegger, who was equally lax with me.

I must have had a secret desire to leave this dream-like attitude to music, and to become a "musician," because at eighteen I found myself with Stefan Wolpe. But all we did was argue about music, and I felt I was learning nothing. One day I stopped paying him. Nothing was said about it. I continued to go, we continued to argue, and we are still arguing eighteen years later.

My first meeting with John Cage was at Carnegie Hall when Mitropoulos conducted the Webern Symphony. I believe that was the winter of 1949-50, and I was about twenty-four years old. The audience reaction to the piece was so antagonistic and disturbing that I left immediately afterwards. I was more or less catching my breath in the empty lobby when John came out. I recognized him, though we had never met, walked over and as though I had known him all my life said, "Wasn't that beautiful?" A moment later we were talking animatedly about how beautiful the piece sounded in so large a hall. We immediately made arrangements for me to visit him.

John at that time lived on the top floor of a tenement overlooking the East River on Grand Street. It was a magnificent view, four rooms were made into two. A large expanse of the East River, just a few potted plants, a long low marble table and a constellation of Lippold sculptures along the wall. (Lippold lived next door.)

The reason I linger at the memory of how John lived is because it was in this room that I found an appreciation and an encouragement more extravagant than I had ever before encountered. It was here also that I met Philip Guston, my closest friend who has contributed so much to my life in art.

At this first meeting I brought John a String Quartet. He looked at it a long time and then said, "How did you make this?" I thought of my constant quarrels with Wolpe, and also that just a week before, after showing a composition of mine to Milton Babbitt and answering his questions as intelligently as I could he said to me, "Morton, I don't understand a word you're saying." And so, in a very weak voice I answered John, "I don't know how I made it." The response to this was startling. John jumped up and down, and with a kind of high monkey squeal screeched, "Isn't that marvelous. Isn't that wonderful. It's so beautiful, and he doesn't know how he made it." Quite frankly, I sometimes wonder how my music would have turned out if John had not given me those early permissions to have confidence in my instincts.

In a few months I too moved into that magic house, except that I was on the second floor, and with just a glimpse of the East River. I was very aware at the time of how symbolically I felt that fact.

I had already become friends with David Tudor while I was with Wolpe. Now I introduced him to John. Soon afterward Christian Wolff appeared, and then Earle Brown, who met John while he was on tour in the middle-west and decided to make a new life in New York in order to be with the new music.

There was very little talk about music with John. Things were moving too fast to even talk about. But there was an incredible amount of talk about painting. John and I would drop in at the Cedar Bar at six in the afternoon and talk until it closed and after it closed. I can say without exaggeration that we did this every day for five years of our lives.

The new painting made me desirous of a sound world more direct, more immediate, more physical than anything that had existed heretofore. Varese had elements of this. But he was too "Varese." Webern had glimpses of it, but his work was too involved with the disciplines of the twelve-tone system. The new structure required a concentration more demanding than if the technique was that of still photography, which for me is what precise notation has come to imply.

"Projection #2" for flute, trumpet, violin and cello—one of the first graph pieces—was my first experience with this new thought. My desire here was not to "compose," but to project sounds into time, free from a compositional rhetoric that had no place here. In order not to involve the performer (i.e. myself) in memory (relationships), and because the sounds no longer had an inherent symbolic shape, I allowed for indeterminacies in regard to pitch. In the "Projections" only register, (high, middle or low) time values and dynamics (soft throughout) were designated. Later in the same year (1951) I wrote "Intersection #1" and "Marginal Intersection," both for orchestra. Both these graph pieces designated only whether high middle or low register of the instrument were to be used within a given time structure. Entrances within this structure, as well as actual pitches and dynamics were freely chosen by the performer.

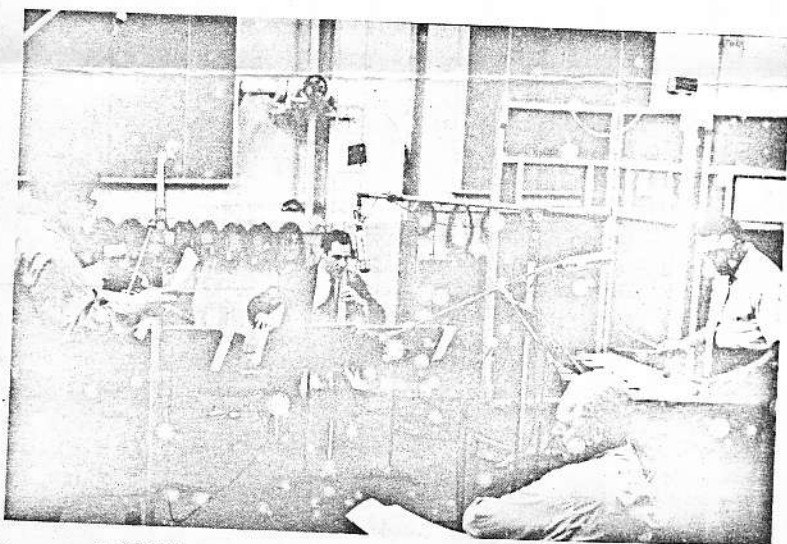


DON BUTTERFIELD

After several years of writing graph music I began to discover its most important flaw. I was not only allowing the sounds to be free—I was also liberating the performer. I had never thought of the graph as an art of improvisation, but more as a totally abstract sonic adventure. This realization was important because I now understood that if the performers sounded bad it was less because of their lapses of taste than because I was still involved with passages and continuity that allowed their presence to be felt.

Between 1953 and 1958 the graph was abandoned. I felt that if the means were to be imprecise the result must be terribly clear. And I lacked that sense of clarity to go on. I hoped to find it in precise notation, i.e. "Extensions For Three Pianos," etc. But precision did not work for me either. It was too one-dimensional. It was like painting a picture where at some place there is always a horizon. Working precisely, one always had to "generate" the movement—there was still not enough plasticity for me. I returned to the graph with two orchestral works. "Atlantis" (1958), and "Out of Last Pieces" (1960), using now a more vertical structure where soloistic passages would be at a minimum.

This brings us to **DURATIONS**—a series of five instrumental pieces, four of which are recorded here. In "Piece for Four Pianos" and others like it, the instruments all read from the same part—and so what you



MORTON
FELDMAN

MATTHEW
RAIMONDI

DAVID
SOYER

DON
HAMMOND

PHILIP
KRAUS

have there is like a series of reverberations from an identical sound source. In **DURATIONS I** arrive at a more complex style where each instrument is living out its own individual life in its own individual sound world.

In each piece the instruments begin simultaneously, and are then free to choose their own durations within a given general tempo. The sounds themselves are designated.

The pieces, while looking identical on paper, were actually conceived quite differently. In **DURATIONS I** the quality of the particular instruments together suggested a closely written kaleidoscope of sound. To achieve this I wrote each voice individually, choosing intervals that seemed to erase or cancel out each sound as soon as we hear the next. In the **DURATIONS** with the tuba, the weight of the three instruments used made me treat them as one. I wrote all sounds simultaneously, knowing that no instrument would ever be too far behind or too far ahead of the other. Through thinning and thickening my sounds I kept the image intact. In **DURATIONS IV** there was a combination of both. Here I was a little

10/5

Morton Feldman b. 1926

Free spirit. No college. Tough life in a pants factory. Composed at night. Early 50's incredible school of art. Went around with these guys - that was his school. Very bad vision.

Doesn't change. His music for the past 20 years hasn't changed. Has a "set thing." His vision.

Pieces since 1950 have all been quiet. Very quiet. Because his eyes are bad?

Most composers use pianissimo for contrast, effect. For Feldman, it is his world. His pieces change your whole environment: "as quiet as possible" on the score.

Cage as a knife: Feldman as a mirror: Wolff as a labyrinth.

↳ imagery

Nice wonderful pieces for piano, two pianos. Indeterminate speed or rather: same score for each player, each player determines his own speed. Complexity from a simple score.

→ Christian Wolff in Cambridge, Morty Feldman, 1967 or 68
written for Lucier and his chorus.

Form is simple and beautiful: A A'. His two trips to Cambridge to see Wolff, who had changed so little. Two events. Two teeny changes: a A at the beginning of A', and a small $\langle \rangle$. Mirror

No text given. Lucier used "open mouth n." Conservative range, but did a lot of changing weight and texture in the harmony. No continuity in chords. Conductor chooses lengths durations — feeling out energies; pay terrific attention to the sound, rather than continuity. Chorus turns inward. Such a beautiful piece. ←

Check it out:

→ Scratch music; Audio test record. Silent grooves altered
with pin and/or...

2/

(graph)

54)

(1954-1956)

NEW DIRECTIONS IN MUSIC 2/

Extensions 1 for Violin and Piano (1951)

Structures for String Quartet (1951)

Projection 4 for Violin and Piano (1951) (graph)

Extensions 4 for Three Pianos (1952-1953)

Intersection 3 for Piano (1953) (graph)

Two Pieces for Two Pianos (1954)

Three Pieces for String Quartet (1954-1956)

Piece for Four Pianos (1957)

The last ten years have seen American composers, painters and poets assuming leading roles in the world of international art to a degree hitherto unexpected. Led by the painters, our whole cultural milieu has changed and is still changing. The "climate" for receptivity to the new in art has improved correspondingly, and one of the most important aspects of this change has been the inter-involvement of the individual arts with one another. Public interest in the emergence of a major composer, painter or poet has, in recent years, almost invariably been preceded by his recognition among other painters, poets and musicians. The influence of esthetic ideas has also been mutual: the very extremity of the differences between the arts has thrown their technical analogies into sharp relief. As an example of what I mean by this, we find that making the analogy between certain all-over paintings of Jackson Pollock and the serial technique of Webern clarifies the one by means of the other—a seemingly "automatic" painting is seen to be as astutely controlled by the sensibility of Pollock in its assemblage of detail toward a unified experience as are certain of Webern's serial pieces. And it is interesting to note that initial public response to works by both artists was involved in bewilderment at the seeming "fragmentation" of experience. Although these analogies cease to be helpful if carried too far, it is in the framework of these mutual influences in the arts that Morton Feldman could cite, along with the playing of Fournier, Rachmaninoff and Tudor and the friendship of John Cage, the paintings of Philip Guston as important influences on his work. He adds, "Guston made me aware of the 'metaphysical place' which we all have but which so many of us are not sensitive to by previous conviction."

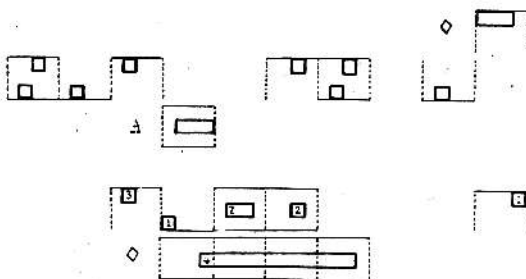
I interpret this "metaphysical place," this land where Feldman's pieces live, as the area where spiritual growth in the work can occur, where the form of a work may develop its inherent originality and the personal meaning of the composer may become explicit. In a more literal way it is the space which must be cleared if the sensibility is to be free to express its individual preference for sound and to explore the meaning of this preference. That the process of finding this metaphysical place of unpredictability and possibility can be a drastic one is witnessed by the necessity Feldman felt a few years ago to avoid the academic ramifications of serial technique. Like the artists involved in the new American painting, he was pursuing a personal search for expression which could not be limited by any system.

This is in sharp contrast to the development of many of Feldman's European contemporaries, for example Boulez and Stockhausen, whose process has tended toward elaboration and systematization of method. Unlike Feldman's their works are eminently suited to analysis and what they have lacked in sensuousness they invariably may regain in intellectual profundity and in the metaphysical implications of their methods. But if we speak of a metaphysical place in relation to Feldman, it is the condition under which the work was created and which is left behind the moment a given work has been completed.

Feldman's decision to avoid the serial technique was an instinctive attempt to avoid the

clichés of the International School of present day avant-garde. He was not to become an American composer in the historical-remembrance line, but to find himself free of the conceptualized and self-conscious modernity of the international movement. Paradoxically, it is precisely this freedom which places Feldman in the front rank of the advanced musical art of our time.

A key work in the development away from serial technique is the *Intersection 3 for Piano* (1953). A graph piece, it is totally abstract in its every dimension. Feldman here successfully avoids the symbolic aspect of sound which has so plagued the abstract works of his contemporaries by employing unpredictability reinforced by spontaneity—the score indicates "indeterminacy of pitch" as a direction for the performer. Where others have attempted to reverse or nullify this aural symbolism (loud-passion, soft-tenderness, and so on) to free themselves, Feldman has created a work which exists without references outside itself, "as if you're not listening, but looking at something in nature." This is something serialism could not accomplish. This freedom is shared by the performer to the extent that what he plays is not dictated beyond the graph "control"—the range of a given passage and its temporal area and division are indicated, but the actual notes heard must come from the performer's response to the musical situation. To perform Feldman's graph pieces at all, the musician must reach the metaphysical place where each can occur, allying necessity with unpredictability. Where a virtuoso work places technical demands upon the performer, a Feldman piece seeks to engage his improvisatory collaboration, with its call on musical creativity as well as interpretative understanding. The performance on this record is proof of how beautifully this can all work out; yet, the performer could doubtless find other beauties in *Intersection 3* on another occasion.



Projection 4 for Violin and Piano (1951) explores an entirely different area of musical experience. A graph piece also (see illustration), its marvellous austerity is achieved mainly through touch, and I will quote the note to the performer as an example of how the individual area of experience in these graph pieces is indicated to the performers:

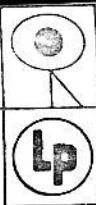
NOTE:

the violin part is graphed above that for the piano. Dynamics are throughout equal and low.

For the violinist:

Timbre is indicated: \diamond = harmonic; P =

This Columbia High Fidelity recording is scientifically designed to play with the highest quality a new stereophonic system, this record will play with even more brilliant true-to-life fidelity.



MORTON FELDMAN

*David Tudor, Russell Sherman, Edwin Hymovitz, Pianists;
 Matthew Raimondi and Joseph Rabushka, Violinists;
 Walter Trampler, Violist; Seymour Barab, Cellist*

pizzicato; A = arco. Relative pitch (high, middle, low) is indicated: □ = high; ▣ = middle; ▢ = low. Any tone within the ranges indicated may be sounded. The limits of these ranges may be freely chosen by the player. Multiple stops are indicated by numbers within the squares. Duration is indicated by the amount of space taken up by the square or rectangle, each box (: :) being potentially 4 icti. The single ictus or pulse is at the tempo of 72 or thereabouts. **For the pianist:**

The ◊ indicates playing without sounding (for the release of harmonics). Pitches, their number and duration are indicated as for the violinist.

A comparison of these two graph pieces, whose ambiances are so totally dissimilar, gives an idea of the great compositional flexibility possible with graph notation.

Unpredictability is used in a different way still in the *Piece for Four Pianos* (1957). This work, scored in notation rather than graph, begins simultaneously for all four pianos, after which the following notes may be played to the end by each of the pianists at time intervals of their mutual or individual choice. Feldman has said, "The repeated notes are not musical pointillism, as in Webern, but they are where the mind rests on an image—the beginning of the piece is like a recognition, not a motif, and by virtue of the repetitions it conditions one to listen." As we proceed to experience the individual time-responses of the four pianists we are moving inexorably toward the final image where the mind can rest, which is the end of the piece. In this particular performance it is as if one were traversing an enormous plain at the opposite ends of which were two huge monoliths, guarding its winds and grasses.

In all of Feldman's recent work the paramount image is that of touch—"the use of the instrument must be as sensitive as the application of paint on canvas." (Which brings us back to Rachmaninoff, Fournier and Tudor.) In some pieces the entrance into the rhythmic structure is left entirely to the performer, and it is in this area that unpredictability enters and the performer must create the experience within the limits of the notation.

On the other hand, one of the most remarkable pieces recorded here is *Structures for String Quartet* (1951). It is a classical string quartet without sonata development, without serial development, in general without benefit of clergy. Like Emily Dickinson's best poems, it does not seem to be what it is until all questions of "seeming" have disappeared in its own projection. Its form reveals itself after its meaning is revealed, as Dickinson's passion ignores her dazzling technique. As with several other Feldman pieces, if you cannot hear *Structures*, I doubt that studying the score would be a help, though it is a thoroughly notated field of dynamic incident, whose vertical elements are linked by a sort of shy contrapuntal stimulation of great delicacy and tautness.

In an oeuvre which so insistently provides unpredictability with opportunities for expansion and breath, the question of notation at all arises, for the graph would seem to provide an adequate control for the experience and a maximum of differentiation. But differentiation is not Feldman's point, even in the graph music: the structure of the piece is never the image, nor in eschewing precise notation of touch is Feldman leaving the field open for dramatic incident whereby the structure could become an image (as in Boulez). Notation is, then, not so much a rigid exclusion of chance, but the means of preventing the structure from becoming an image in these works, and an indication of the composer's personal preference for where unpredictability should operate. As John Cage remarked in this connection, "Feldman's conventionally notated music is himself playing his graph music." And of course the degree of precision in the notation is directly related to the nature of the musical experience Feldman is exposing. This notation can be very precise, as in *Extensions 1 for Violin and Piano* (1951), which indicates an increasing tempo of inexorable development from beginning to end by metronomic markings, as well as the dynamics and expressive development.

Although the traditionally notated works are in the majority on this record (*Extensions 1, Structures for String Quartet, Extensions 4, Two Pieces for Two Pianos, Three Pieces for String Quartet*), I have gone into the use of unpredictability in this music at such length in order to reach a distinction about its use in much contemporary music. In Feldman's work unpredictability involves the performer and the audience much in the same way it does the composer, inviting an increase of sensitivity and intensity. But in much of the extreme vanguard music in America and Europe, particularly that utilizing tape and electronic devices along with elements of unpredictability, the statistical unpredictability has occurred in the traditional manner during the making of the piece; it has been employed preconceptually as a logical outgrowth of serial technique, and it is dead by the time you hear it, though the music is alive in the traditional sense of hearing. What Feldman is assuming, and it is a courageous assumption, is that the performer is a sensitive and inspired musician who has the best interests of the work at heart. This attitude leaves him free to concentrate on the main inspiration area where the individual piece is centered.

What he finds in these centers—whether it is the sensuousness of tone and the cantilena-like delicacy of breathing in *Three Pieces for String Quartet* (1954-56), or the finality of the "dialogues" in *Extensions 4 for Three Pianos* (1952-53)—is on each occasion a personal and profound revelation of the inner quality of sound. The works recorded here already are an important contribution to the music of the 20th Century. Whether notated or graphed, his music sets in motion a spiritual life which is rare in any period and especially so in ours.

FRANK O'HARA

* * *

Library of Congress catalog card number R59-1329 applies to this record.

→ For Chorus and Instruments II, with Tuba and chimes, 1967 or 8
really nice. ←

→ Piece for Four Pianos, 1957

phase as electronic concept (vs. "rhythmic disjunction"); reverberation. ←

10/10

More music. Morty Feldman.

4 guys in old American Avant Garde: Cage, Feldman, Earl Brown, Christian Wolff.
Feldman and Brown very closely connected with art, the painters.

Feldman and Philip Guston.

Touch. On instrument.

Passions of the 19th century are kind of funny now.

Cage: Diverge: acceptance: contemporary idea

Emotional value of intervals: Work like mad to avoid it/them.

Feldman and graphic scores.

→ Intersection #3 for Piano, graph piece, 1953. David Tudor.
last loud piece →

→ Structures for String Quartet, 1951

→ Projection #4, graph piece, 1951, for piano and violin.

◇ harmonic; Pizzicato: □ hi, ▣ middle, ▢ lo; numbers for # of stops; space for duration (in
icti (beat); 72 per min) ←

Attack and decay are so important.
Metaphysical place. vs. stealing

8. Check it out:

Canon:

A | A^{m2} | whole note | A^{m3}

→ place as electronic concept (as rhythmic displacement) →

10/10
More music: M.A. Edelman
Edelman and Philip Guston
Tough Organization
Progression of the 19th century are kind of funny
Cape Prince of Wales; contemporary
Fundamental value of intervals: what it's hard to avoid it/learn
Edelman and graphic scores

→ Interval for 3 for piano, high voice, 1983 David T. ...
last but first

→ Structures for string quartet 1981

→ Projection #1, high voice, 1981 Edelman and Philip
→ ...

Metaphysical place of starting
Attack and ...

10/12 → The Swallows of Salangan, inspired by passage by Boris Pasternak
chorus + orchestra (lots of winds, no violins or violas, two pianos, vibraphones)
everybody goes at own speed, B^b in the center of the piece; everyone
has to play/sing it. 35 instruments. Thick. Alvin and the
Brandeis chorus. ⁶⁻⁷ minutes or so. 1963 performance. Written c. 1960 ←

→ King of Denmark, 1964, percussion and finger tips
[contrast it to Zyklus, by Stockhausen] Introverted

10/17 Slide show 8 minutes

Jackson Pollack

Franz Kline

Willem de Kooning

Jasper Johns

Arshile Gorky

Barnett Newman

Famous guys who were

earning a lot of money

NYC city action painters

tremendous output

Paris in the 20^s

with the exception of Jasper

Johns, hit the new style in →

their "middle age", after more "traditional" painting

Earle Browne:

Denver, Colorado, jazz musician. John Cage came and
freed him out. Moved to N.Y.C.

Close connection to art - Alexander Calder; Mobiles;
Moving, changing art.

Compose a score whose parts could change. Improvisatory. Started
with graphs. December '52

→ December '52, Earl Browne,

Alvin and the chorus at Town Hall 1963 (Swallows)

Whoops — Earl Browne conducted it. Spontaneity, Strange ←



→ Available Forms

1 | 2 | 3 | etc... forms available. Director selects which forms to take elements (pitch, timbre, density, etc.) from and conducts them ←



0888 10 10 10

→ From here (1963)

Chorus and orchestra. Alvin and Brown conduct. Score?
Tone clusters. Musical gestures. Fade acts/ins. Director as a
Prima Donna — MGM. ←

10/19 I cut for Tabla. 5 10

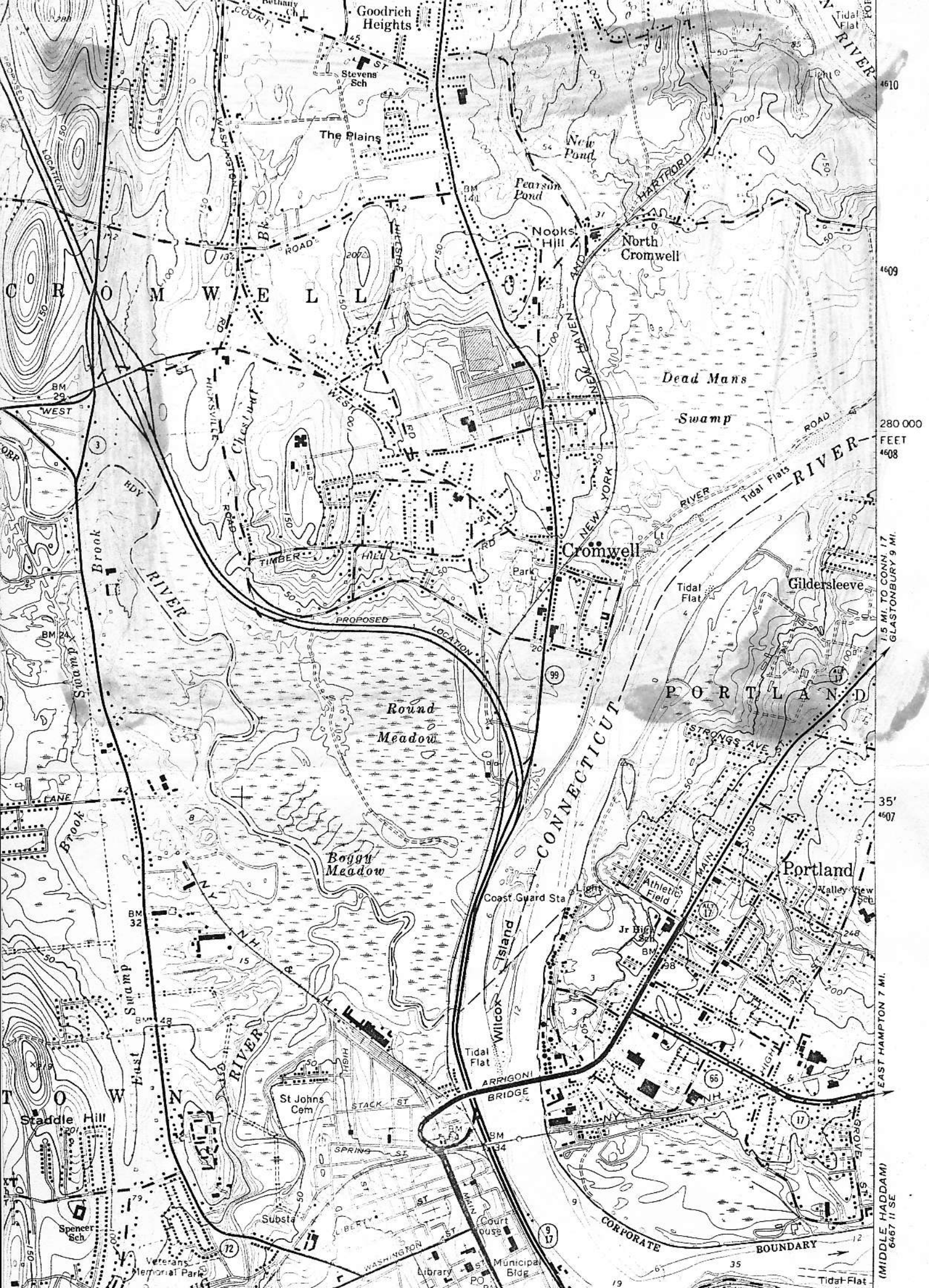


10/24 Jax: that's where the problems of electronic music performance are found. Connections/misconnections/deconnections. System meeting system. Component into component.

Thinking in terms of parts, separation of. Electronic environment in plugging things together, assembling components.

Interpretation of Earl Browne score — visual, with physicality, whole world with no distinctions or exploitations. Take it into a different realm, no associations with reality here — another planet.

Superimpose systems, one on the other: no connections
Artificial superimposition of ideas on sound. Visual control of art —
written music. Dance (Adzenya last Friday night)
Purposes.



4610

4609

280 000
FEET
4608

1.5 MI. TO CONN. 17
GLASTONBURY 9 MI.

35'
4607

EAST HAMPTON 7 MI.

MIDDLE HADDAM
6.47 MI. SE

Instruments as physical objects from environment. Audible sounds on things that exist anyway

→ now: map as a score.

Connecticut river: very strong, old, important, influential, Intellectualizing, because it doesn't mean that on the page. Alvin once explored the source of it: taped the pitch + tone of the stream at different places; tuned it with dams. We are alienated ←

→ Project: grocery list blues. Deal with every visual symbol. Voice. Also look at map(s)

10/26 Alan Kaprow — happenings:

10/31 Computer Cookbook

Energy recipes

Taste

Texture

→ → Design something for TV thing pre-thanksgiving...:

Nam June Paik - documentary on Cage with Alvin stuttering for 30 minutes as the interviewed-academic.

Shigeko Kubota - Cage thing and some other stuff (5 or 6)s.

→ last of the old Avant-Garde, the hard-to-like: Christian Wolff
16 years old when he met Cage; wanted to study composition — early 1950's, Greek expert, considers himself an amateur composer. Cage assignment: make a 20 minute piece with three notes.

Complex relationships — extension of ~~sen~~ German/Austrian serialists.

Made real chamber music — more personal, complex than orchestral stuff. Entwined. New idea though — cybernetics (organism self-control by feedback) — of group control, removal of composer. Also: Zero time: no time continuum (A → B), but point to point. Combined effect: example to explain: play short high note when you here a short low note >> or the idea of: rules in piece, listening, reacting, self-control.

Score: for two, four, or eight players — Pairs. Eight parts composed vertically (8 part "harmony") but can be played (by 2 or 4) in a more linear fashion.

Real chamber music — players can control it, within a framework.
→ For one, two, or three players, Christian Wolfe. for one player.

David Tudor, on a little detuned baroque organ. Prepared.

Superimposition of two performances: 1 he played the organ, 1 he crawled around inside it. ←

The realization: David Tudor broke down the barriers between composer and performer. At one time, the greatest pianist in the world, could play stuff that was technically impossible — Boulez' Sonata. Helped Cage enormously.

11/2

a piece by Alvin, with television/video
physical phenomena: bowing a plate of metal, plate vibrates, sand shows
the vibration, demonstrates sound, the harmonics.

players: self-created scope — aim for an image, try to create it,
or improvise — image is their collective image.

alchemy: base idea: transform low material into gold, essences, material.
something to do with the way we compose, exploring physical phenomena,
essences. Alchemy \longleftrightarrow marxism.

plate, 4 transducers [Lafayette wall things]. sound connected to physical reality.
does work, moves sand into images.

has been done with singer(s), violinist.

electronic instruments because: capable of producing very simple sounds,
continual sounds, better explanation of images.

fantastic. The Queen of the South — alchemical expression

f pl
There are ten parts, one to a page. A performance may consist of any number of them, repeating none, or of any one, through more than ten times.

Each part, or page, is a score, and each player should have a copy of it.

Play all that **FOR 1, 2 OR 3 PEOPLE** in any convenient sequence, not repeating anything, except in IX, where any of the events may be played or omitted any number of times.

Black notes are variously short, up to about one second. With stems as sixteenth notes (e.g. in III, etc.) they are very short. White notes are of any length, sometimes determined by the requirements of coordination (see further on).

A dynamic indication may stand by itself: (as at left top of page) assume a note to go with it or apply it to any note given on the page. However > or <, standing by themselves, should always be applied to a note already given.

David Tudor's prepared organ

(continued from page 2)

met = a sound using metal (generally of low resonance; met² = a higher resonance)

wd = a sound using wood (generally of low resonance; wd² = a higher resonance)

t = a sound made by tapping or touching or tracing or the like

b = a sound made by breathing or blowing or the like (but not singing)

fr = a sound involving friction

pl = a sound involving plucking or pulling

sn = a sound involving snapping

stret = a sound involving stretched material

In parts V-X notations such as the following not standing by a note are to be applied to any sound on that page, whether produced by oneself or another player.

~ = a slight alteration of a sound

^ = cut off a sound

→ = extend a sound

↗ = raise a sound in some respect

↘ = lower it in some

Christian Wolff

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There are ten parts, one to a page. A performance can be made of any number of them, repeating none, or of any one, repeated no more than ten times.

Each part, or page, is a score, and each player should have his copy of it.

Play all that is notated on a page, in any convenient sequence, not repeating anything; except in IX, where any of the events can be played or omitted any number of times.

Black notes are variously short, up to about one second. With stems as sixteenth notes (e.g. in III, etc.) they are very short. White notes are of any length, sometimes determined by the requirements of coordination (see further on).

A dynamic indication may stand by itself (as at left top of I): assume a note to go with it or apply it to any note given on the page. However $>$ or $<$, standing by themselves, should always be applied to a note (any one) already given.

A diagonal line towards a note = play that note directly after a preceding one. A diagonal line away from a note = that note must be followed directly by another.

A vertical line down from a note = play simultaneously with the next sound (both attack and release).

A small number at the end of a line (e.g. at left top of I) = coordinate with the second (if the number is 2; third, if 3; etc.) sound, preceding (if diagonal line towards note), following after one has begun one's note (if diagonal line away from it), or play simultaneously with the second next sound (if the line is vertical).

If a line to a note is broken by a number followed, after a colon, by a zero (—2:0—) (e.g. top middle of III), that number of seconds of silence intervene before the required coordination.

An α at the end of a line (e.g. middle left in I) = coordination must be with a sound made by another player. If only one person is playing, he must coordinate either with a sound he hears in the environment or with a sound he has himself made unintentionally.



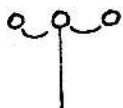
= play after a previous sound has begun, hold till it stops.



= start anytime, hold till another sound starts, finish with it.



= start at the same time (or as soon as you are aware of it) as the next sound, but stop before it does.



= start anytime, hold till another sound starts, continue holding anytime after that sound has stopped.

Horizontal lines joining two notes = a legato from the one to the other (both played by the same person).

If no line leads to a note or drops vertically from it, one can start to play at any time. If no line leads away from a white note, it can last as long or as short as you like.

One, two or three people can play. If one plays alone, he must realize all "open" coordinations (lines with notes at only one end) himself, that is, he must use other notes given on a page, as he can, to provide something to coordinate with: or, sometimes, he may use sounds from the environment [as he must when there is an α at the end of a line]). (He may in some cases have to rearrange the material on a page and consider a disposition of it which will ensure that all the required coordinations can be managed.) All the material on a page can be freely superimposed, so long as the requirements of coordination are met.

If two or three play, the material on a page should be distributed between them, in any way (in VII a distribution for two players is indicated); but no material marked off for one player should be played by another (note: this holds for IX too). Coordination, then, for each player can be either with his own material (as if he were playing alone)--unless there is an α --or with whatever sound(s) he hears next from another player (or both).

Players can use any ways of making sounds, allowing for the following specifications:

Some notes are on staves: play the indicated pitch (reading either bass or treble clef; sound at pitch; if pitch not available in range, transpose at least two octaves; short lines off a pitch at an angle = fraction of a tone less than half up where line angles up, down where down). *a little over a tone*

Where no pitches specified, they are free (recognizable or not).

Larger numbers directly over a note: if black = that number of tones (not necessarily played together unless bracketed, 2); if red number = that number of timbres. No number = one (e.g. $\frac{2}{0}$ = two tones, one timbre; 0 = one tone, two timbres).

Larger numbers on a line between notes: if black = that number of changes of some aspect(s) of the sound before reaching the next note; in red = that number of changes of the timbre of the first note before reaching the next one.

A red number 1 over a note = use a different timbre from the one immediately preceding.

x = anything

$\frac{*}{*}$ = a noise

\curvearrowright = change the direction in space of a sound

\uparrow = a high in some aspect

\downarrow = a low in some aspect

\ominus, \oplus = a sound in a middle place, in some respect, of the sounds around it.

Δ, \blacktriangle = a sound in some respect dissonant with what immediately precedes

\diamond = a harmonic

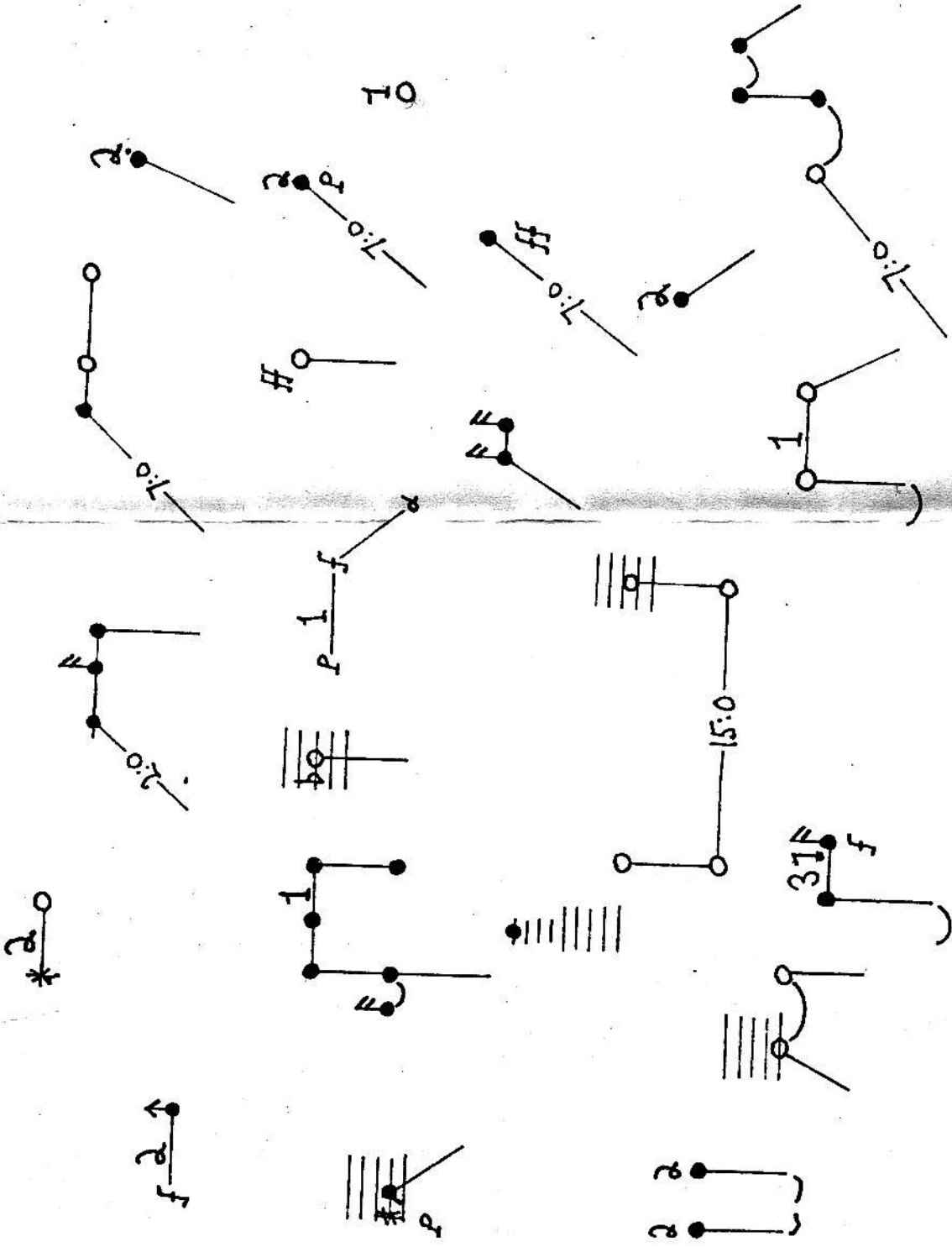
asp. = 'as possible'

\oplus = a sound as far away as possible, in some aspect, from what immediately precedes it

extreme

(continued on title page)

III



11/7

Christian Wolff

difficult, complex instruments — chamber music — notes
electronics, intimacy + interplay.

interested in situation, cues, dependent decisions, intricate interplay.

Cybernetics — feedback control.

Distillation of all the things people ~~have~~ learn as instrumentalists/musicians.

→ Duo for Violin and Piano ←

→ Duo for Piano and Horn ←

Prose pieces — for normal people it seems. Prepare the
score for Thursday. Sticks, Stones, Play — bring objects

Think about cartridge music + objects of it.

Play

Play, make sounds, in short bursts, clear in outline for the most part; quiet; two or three times move towards as loud as possible, but as soon as you cannot hear yourself or another player stop directly. Allow various spaces between playing (2, 5 seconds, indefinite); sometimes overlap events. One, two, three, four or five times play a long sound or complex or sequence of sounds.. Sometimes play independently, sometimes by co-ordinating: with other players (when they start or stop or while they play or when they move) or a player should play (start or, with long sounds, start and stop or just stop) at a signal (or within 2 or five seconds of a signal) over which he has not control (does not know when it will come). At some point or throughout use electricity.

Color version:

red; blue; white; green; yellow; black; silver; sharp, short sound; flat; silence; simpler relationships (1:2, 2:3, 3:4) mixed with less simple (5:6, 7:8); with breath or air; soft; long; thin or flourished.

Variable shades.

Colors need not be symbols for sounds, nor sounds for colors.

Consider making, sometime, a fabric with some design in it, but not in two dimensions.

Or, allow for the possibility of periodicities appearing, and disappearing (for instance, shortly on being identified, or immediately on being imitated, or within 3 or 7 seconds of a signal).

At some point drop two of the colors and two of the descriptions listed above; and shortly before finishing introduce five new ones.

Are musical sounds to other sounds as black and white is to color?

Are the colors necessary? Lights, painting confetti, the colors already there.

What about texture? Smooth, lumpy, gritty; streaks, powdered, smeared, even edged, trailing.

Colors are not to objects one sees as a sound quality to sounds one hears.

Or are they?

Stones

Make sounds with stones, draw sounds out of stones, using a number of sizes and kinds (and colours); for the most part discretely; sometimes in rapid sequences. For the most part striking stones with stones, but also stones on other surfaces (inside the open head of a drum, for instance) or other than struck (bowed, for instance, or amplified). Do not break anything.

done for
art school

Sticks

Make sounds with sticks of various kinds, one stick alone, several together, on other instruments, sustained as well as short. Don't mutilate trees or shrubbery; don't break anything other than the sticks; avoid outright fires unless they serve a practical purpose.

You can begin when you have not heard a sound from a stick for a while; two or three can begin together. You may end when your sticks or one of them are broken small enough that a handful of the pieces in your hands cupped over each other are not, if shaken and unamplified, audible beyond your immediate vicinity. Or hum continuously on a low note; having started proceed with other sounds simultaneously (but not necessarily continuously); when you can hum no longer, continue with other sounds, then stop. With several players either only one should do this or two or two pairs together (on different notes) and any number individually.

You can also do without sticks but play the sounds and feelings you imagine a performance with sticks would have.

11/9 we listen again: For...

→ For one, two, or three players, David Tudor - prepared organ.
(baroque like), two versions simultaneous. ←

more on Tudor

→ Improvisation A Jante, Mauricio Kagel, for Organ. A huge difficult piece. Tudor started in choir, then organ, then met Cage, started contemporary music new music. Phantom of the opera. Exploits the instrument but this could be a sort of bad thing. Nifty thought. ←

11/14

→ Summer, for string quartet

[Benjamin Franklin's string quartet
Ruth Crawford Seeger]

like for 1, 2, or 3 players (score) (principles) 1961

Complex coordinations, connections. extension and distillation of Bach: how to put musical materials together (The Musical Offering of Bach).
figure out the first couple of sounds. f pl i i

Bring scores and materials for practice for cartridge

WESLEYAN UNIVERSITY

DEPARTMENT OF MUSIC

presents

An Evening of Video Art and Electronic Music with Alvin Lucier, and
Guest Artists Nam June Paik and Shigeko Kubota.

Tuesday, November 21, 1972 8:00 P.M.

Downey House Ballroom

Simultaneous performances of

Video Birthday Party of John Cage, No. 3

Shigeko Kubota

Europe on 1/2 inch a day

Impasse of Infidelity

Marcel Duchamp and John Cage

Video Art

Nam June Paik

The Green of the South (1972)

Alvin Lucier

for players, responsive surfaces, strewn material
and closed-circuit television monitor system. As
the strewn material responds to the musical sounds
in the vibrating medium, making patterns, the performers
either make pre-determined figures or discover their
collective imagery.

Cartridge Music (1960)

John Cage

(amplification of small sounds)

Video Consultant: Bob White

Technical Consultant: Ron Goldman

Performers:

Alexander, Steven
Bohn, David H.
Bohoranon, Kenneth W.
Button, Terry F.
Celeste, Michael J.
Coff, Richard S.
Coker, Edwin L.
Collins, Nicolas B.
Cruickshanks, Donald A.
Driscoll, Ellen
Duncan, Ann S.
Duncan, Bruce C.
Eager, George B.
Forster, James R.
Fusci, Raymond A.
Gilmore, Samuel L.
Gorn, Steve
Greenberg, Laurence P.

Grilli, Stephen J.
Hackett, Raymond A.
Judge, Tom S.
Leganza, Richard L.
Lehrhoff, Michael B.
Lewis, Barbara A.
Litwak, Howard D.
Mcardle, Peter D.
Monfort, Jose A.
Montalvo, Daniel J.
Plettner, David H.
Richardson, Robert K.
Rousseau, Thomas J.
Sanchez, Edwin R.
Smith, Steven A.
Suleske, Robert T.
Whiting, David S.
Young, David B.

JOHN CAGE

on nam june paik's "Zen for Film"(1962-64)

On the nature of silence: Well now, you know that I've written a piece called 4'33", which has no sounds of my own making in it, and that Robert Rauschenberg has made paintings which have no images on them--they're simply canvases, white canvases, with no images on them--and Nam June Paik, the Korean composer, has made an hour-long film which has no images on it. Now, offhand, you might say that all three actions are the same. But they're quite different.

The Rauschenberg paintings, in my opinion, as I've expressed it, become airports for particles of dust and shadows that are in the environment.

My piece, 4'33", becomes in performance the sounds of the environment.

Now, in the music, the sounds of the environment remain, so to speak, where they are, whereas in the case of the Rauschenberg painting the dust and the shadows, the changes in light and so forth, don't remain where they are but come to the painting. In the case of the Nam June Paik film, which has no images on it, the room is darkened, the film is projected, and what you see is the dust that has collected on the film. I think that's somewhat similar to the case of the Rauschenberg painting, though the focus is more intense. The nature of the environment is more on the film, different from the dust and shadows that are the environment falling on the painting, and thus less free.

University of Cincinnati. 1968

"Cinema Now"

(edited by H. Currie and M. Porte)

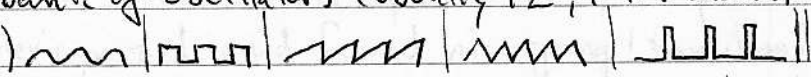
N.B. Dear John:

The nature of environment is much much more on TV than on film or painting. In fact, TV (its random movement of tiny electrons) IS the environment of today.

N.J.P. (1971)

11/28 European tradition in America (orchestra, symphony) countered by American music of Cage, Feldman, Brown.

1952 - Cage's first tape piece, *Colon* (Köln) first real classic electronic studio (). Paris 1958, *Musique Concrète*, lots of film music, Pierre Schaeffer, Pierre Henry — state supported [Symphony for One Man Solo]

Köln - electronic instruments (sound sources) and processing. Classic studio: bank of oscillators (usually 12, 1 for each note of the scale yep)  filters: high pass, low pass, band pass, notch (band reject) — band pass was most important; all-pass filter - multi-band. White noise generator.

Tape, Mike, Record... Sound sources. Processing: reverb — very boring except... Envelope generator. Ring modulator. Tape recorders.

Making material for piece. Tune the oscillators to your own timbre, harmonic/enharmonic series, tape segments. Then do the same with filters and other stuff. Put the pieces together, generate nifty things. Change speeds. Thousands of splices.

Karlheinz Stockhausen — study with sine tones/waves only:

→ Studie I — Stockhausen, graph score, envelopes and reverb abound, enharmonic constructions, variable speed tape ←

Then did Studie 2, with other sounds, *The Gesang der Junglinge 1* — electronic sounds and boy soprano. "Quite spectacular." Voice, filter, reverb, electronic sounds, apocalyptic text, five channels, confusion between elements.

→ Gesang der Junglinge 1 ←

11/30 a book: Pavilion, published E.P. Dutton.

Experiments in Art and Technology - E.A.T. - designed audio-visual pavilion for Pepsi at Expo in Japan. 20 artists and 20 engineers. Programming for a month. New artists every week. Lots of money from Pepsi, but they didn't like it changing all the time

Stockhausen. From the strict German studio thing. The most popular word was "control", don't rely on performance. Then was Americanized and found his gang (tam-tam) wrote Mikrofonie I: 6 players: two players, two directional-microphones, two bandpass-potentiometers. At first improvised, then scored with following ideas: halfway between strict score and indeterminacy - he still has control; relationships/tension (between groups) makes art (unlike Cage); notation for ① similarity ② opposites ③ starts similar, then go far away

→ Mikrofonie I ←

Cage in Landscape #3, used three AM radios, 6 players, score, director/conductor - like going through a dense urban environment or beach. Stockhausen did Shortwave.

→ kurzwellen, for radios and instrumentalists, shortwave. ←

→ Telemusik. Tape collage, of all different music, done in Japan. ~~was~~. Processed a lot ←

Luciano Berio. Started electronic studio in Milan.

→ Circles, soprano, harp, drums, ^{percussion} Text of E.E. Cummings. ←

James Joyce splices words and phrases. Composers (electronic) love him.

Fragmentation of the multi-channelled experience.

We are pioneers.

