I Towards (a definition of) experimental music

Objections are sometimes made by composers to the use of the term *experimental* as descriptive of their works, for it is claimed that any experiments that are made precede the steps that are finally taken with determination, and that this determination is knowing, having, in fact, a particular, if unconventional, ordering of the elements used in view. These objections are clearly justifiable, but only where, as among contemporary evidences in serial music, it remains a question of making a thing upon which attention is focused. Where, on the other hand, attention moves towards the observation and audition of many things at once, including those that are environmental – becomes, that is, inclusive rather than exclusive – no question of making, in the sense of forming understandable structures, can arise (one is a tourist), and here the word 'experimental' is apt, providing it is understood not as descriptive of an act to be later judged in terms of success and failure, but simply as of an act the outcome of which is unknown. What has been determined? John Cage (1955)

When a composer feels a responsibility to make, rather than accept, he eliminates from the area of possibility all those events that do not suggest this at that point in time vogue for profundity. For he takes himself seriously, wishes to be considered great, and he thereby diminishes his love and increases his fear and concern about what people will think. There are many serious problems confronting such an individual. He must do it better, more impressively, more beautifully, etc. than anybody else. And what, precisely, does this, this beautiful profound object, this masterpiece, have to do with Life? It has this to do with Life: that it is separate from it. Now we see it and now we don't. When we see it we feel better, and when we are away from it, we don't feel so good. John Cage (published in 1959, written in 1952)

For living takes place each instant and that instant is always changing. The wisest thing to do is to open one's ears immediately and hear a sound suddenly before one's thinking has a chance to turn it into something logical, abstract or symbolical. John Cage (1952)

In this opening chapter I shall make an attempt to isolate and identify what experimental music is, and what distinguishes it from the music of such avant-garde composers as Boulez, Kagel, Xenakis, Birtwistle, Berio, Stockhausen, Bussotti, which is conceived and executed along the well-trodden but sanctified path of the post-Renaissance tradition.* Since,

* For obvious reasons I have deliberately chosen to concentrate on the *differences* between the experimental and the avant-garde. Interestingly enough Morton Feldman's professed independence of both experimental and avant-garde standpoints (as I will show, Feldman's music is experimental as I define it) leads him to these recent conclusions:

as the Chinese proverb has it, 'One showing is worth a hundred sayings' I propose to take a practical instance – Cage's *4′33″* – dating from the same inauguration period of experimental music as the three statements quoted above, and use it as a point of reference. I have selected the so-called silent piece not because it is notorious (and mis-understood) but simply because it is the most empty of its kind and therefore for my purposes the most full of possibilities. It is also – certainly for Cage – a work that has outlived its usefulness, having been overtaken by the revolution it helped to bring about. ('I no longer need the silent piece' Cage said in an interview in 1966.) I shall build the discussion around Cage's questioning of the traditional unities of composing, performing and listening: 'Composing's one thing, performing's another, listening's a third. What can they have to do with one another?' In normal circumstances it might seem puzzling to make this separation, but even at such an early point in the history of experimental music *4′33″* demonstrates very clearly what composition, realization and audition may or may not have to do with one another.

The distinctions between the experimental and the avant-garde ultimately depend on purely musical considerations. But as Cage's statements show it would be foolish to try and separate sound from the aesthetic, conceptual, philosophical and ethical considerations that the music enshrines. As Alan Watts wrote of the difficulties for the western mind in understanding Chinese philosophy, 'the problem is to appreciate differences in the basic premises of thought and in the very methods of thinking.' And Boulez was aware of such differences: 'Nothing is based on the "masterpiece", on the closed cycle, on passive contemplation, on purely aesthetic enjoyment. Music is a way of being in the world, becomes an integral part of existence, is inseparably connected with it; it is an ethical category, no longer merely an aesthetic one.' Boulez was in fact comparing non-western ethnic traditions to the western art music tradition, but his statement nonetheless expresses the position of experimental music very clearly.

What music rhapsodizes in today's 'cool' language, is its own construction. The fact that men like Boulez and Cage represent opposite extremes of modern methodology is not what is interesting. What is interesting is their similarity. In the music of both men, things are exactly what they are – no more, no less. In the music of both men, what is heard is indistinguishable from its process. In fact, process itself might be called the Zeitgeist of our age. The duality of precise means creating indeterminate emotions is now associated only with the past.

And for the newly-awakened political consciousness of Cornelius Cardew and John Tilbury – which now leads them to denounce their past attitudes and activities expressed in this book – overriding similarities reside in the elitist, individualistic, bourgeois culture which has spawned both the experimental and the avant-garde.

1 John Cage's *4′33″*

I

TACET

II

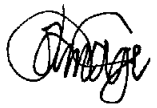
TACET

III

TACET

NOTE: The title of this work is the total length in minutes and seconds of its performance. At Woodstock, N.Y., August 29, 1952, the title was 4' 33" and the three parts were 33", 2' 40", and 1' 20". It was performed by David Tudor, pianist, who indicated the beginnings of parts by closing, the endings by opening, the keyboard lid. However, the work may be performed by any instrumentalist or combination of instrumentalists and last any length of time.

FOR IRWIN KREMEN JOHN CAGE



Composing

Notation

The score of *4′33″* presents, by means of the roman numerals I, II and III, a three-movement work; each movement is marked 'TACET'. A footnote (the only actual 'note' in Cage's score!) indicates that at the first (and most talked-about) performance David Tudor chose to take four minutes and thirty seconds over the three sections. Since 'TACET' is the word used in western music to tell a player to remain silent during a movement, the performer is asked to make no sounds; but – as the note makes clear – for any length of time, on any instrument.

As notation, then, *4′33″* is early evidence of the radical shift in the methods and functions of notation that experimental music has brought about. A score may no longer 'represent' sounds by means of

the specialized symbols we call musical notation, symbols which are read by the performer who does his best to 'reproduce' as accurately as possible the sounds the composer initially 'heard' and then stored. Edgard Varèse once drew attention to some of the disadvantages of the mechanics of traditional notation: with music 'played by a human being you have to impose a musical thought through notation, then, usually much later, the player has to prepare himself in various ways to produce what will – one hopes – emerge as that sound.' *4′33″* is one of the first in a long line of compositions by Cage and others in which something other than a 'musical thought' (by which Varèse meant a pattern of sounds) is imposed through notation. Cornelius Cardew wrote in 1963: 'A composer who hears sounds will try to find a notation for sounds. One who has ideas will find one that expresses his ideas, leaving their interpretation free, in confidence that his ideas have been accurately and concisely notated.'

Processes

Experimental composers are by and large not concerned with prescribing a defined *time-object* whose materials, structuring and relationships are calculated and arranged in advance, but are more excited by the prospect of outlining a *situation* in which sounds may occur, a *process* of generating action (sounding or otherwise), a *field* delineated by certain compositional 'rules'. The composer may, for instance, present the performer with the means of making calculations to determine the nature, timing or spacing of sounds. He may call on the performer to make split-second decisions in the moment of performance. He may indicate the temporal areas in which a number of sounds may be placed. Sometimes a composer will specify situations to be arranged or encountered before sounds may be made or heard; at other times he may indicate the number and general quality of the sounds and allow the performers to proceed through them at their own pace. Or he may invent, or ask the performer to invent, particular instruments or electronic systems.

Experimental composers have evolved a vast number of processes to bring about 'acts the outcome of which are unknown' (Cage). The extent to which they are unknown (and to whom) is variable and depends on the specific process in question. Processes may range from a minimum of organization to a minimum of arbitrariness, proposing different relationships between chance and choice, presenting different kinds of options and obligations. The following list is of necessity only partial because any attempt to classify a phenomenon as unclassifiable and (often) elusive as experimental music must be partial, though most processes conform to what George Brecht termed 'The Irrelevant Process' (especially if 'selection' is taken to include 'arrangement'):

2 Christopher Hobbs's *Voicepiece*

VOICEPIECE

Voicepiece is for any number of vocalists (not necessarily trained singers), and lasts for any length of time. Each performer makes his own part, following the instructions below. It may be found desirable to amplify the vocal noises, since it is difficult to vary the amplitude of these predominantly quiet sounds. Any of the other sounds may be amplified. Loudspeakers should be placed around and among the audience. The performers should sit in the auditorium, and may move around freely during the performance. The piece may take place in darkness, in which case each performer will need a small torch by which to read his part.

Determination of Events

Open a telephone directory at random, and begin reading at the top of the left-hand page. Read only the last four figures of each number. Each set of four figures constitutes one event. As many sets are read as will provide a programme of actions to fill the time available for the performance. Read down the page, omitting no numbers.

Interpretation of the Numbers

The first of the four figures in a set refers to various types of sound production, according to the following system: –

Figure 1 indicates singing, with words. The words may be in any language, and any dialect. Use any literature from which to obtain texts, except these instructions. Do not in invent your own text. The literature, and thus the language, etc. may be changed any number of times during the course of a performance but such changes should be made between, not during events.

Figure 2 indicates singing, without words. The note(s) may be sung to any sound provided that the mouth is open for their production.

Figure 3 indicates humming (mouth closed).

Figure 4 indicates whistling. If you cannot whistle use instead any one vocal noise other than described in figures 6-8.

Figure 5 indicates speech. The remarks in figure 1 apply here also. Very quiet speech may be interpreted as whispering, very loud speech as shouting (see below)

Figures 6, 7 and 8 indicate vocal noises, produced with lips, throat and tongue respectively.

Figure 9 indicates a vocal noise produced by any means other than those described above, eg. with the cheeks.

Figure 0 indicates any vocal sound not included in the above categories, eg. screaming.

The second of the four figures in a set refers to the duration of the event. 0 is very short, 9 is very long. The other numbers represent roughly equal gradations between these extremes. Each event may contain any number of sounds of any duration, depending on the overall duration of the event. The sounds may be made at any point within the event, with or without silence preceding and/or succeeding any sound.

The third figure of the set refers to pitch and amplitude. 0 is very low/very quiet, 9 is very high/very loud. Both these characteristics apply only in a general way to the event. Not all the sounds in an event need be very high and very loud or whatever.

Pitch and amplitude will apply in different degrees to the various sounds. In categories 1-4, pitch is the primary consideration, and, in general, amplitude will follow on from it It is, for example, very difficult for an untrained singer to produce extreme low sounds at anything other than a very low amplitude. In categories 5-9, amplitude is more easily varied, especially if amplification is available, and pitch should be left to take care of itself.

The fourth figure of the set refers to silence after an event. 0 is no silence, 1 is a very short pause, and so on. 9 represents a very long silence.

October 1967

'In general, bias in the selection of elements for a chance-image can be avoided by using a method of selection of those elements which is independent of the characteristics of interest in the elements themselves. The method should preferably give an irregular and unforeseen pattern of selection.'

1 CHANCE DETERMINATION PROCESSES

These were first used by Cage who still favours them – the *I Ching* (the ancient Chinese Book of Oracles) used to answer questions about the articulation of his material (*Music of Changes*, 1951, *Mureau*, 1971); observation of the imperfections on paper (*Music for Piano*, 1952–6); the random overlaying of shapes printed on perspex and readings taken to make various determinations (*Variations I–III* and *VI*, 1958–67); a star map (*Atlas Eclipticalis*, 1961–2) and the computer (*HPSCHD*, 1969). Other composers have also used this type of chance process: random number tables or the telephone directory are to be used in La Monte Young's *Poem* (1960), and in Christopher Hobbs' *Voicepiece* (1967) random techniques are used to produce a programme of vocal action for each individual performer. George Brecht uses shuffled cards in *Card Piece for Voices* (1959) as does Cage in *Theatre Piece* (1960). The importance of Cage's chance methods of the early 50s, according to Dick Higgins, lay in the placing of the 'material at one remove from the composer by allowing it to be determined by a system he determined. And the real innovation lies in the emphasis on the creation of a system' (or process).

2 PEOPLE PROCESSES

These are processes which allow the performers to move through given or suggested material, each at his own speed. Morton Feldman was certainly the first to use this procedure in *Piece for Four Pianos* (1957); Cardew uses it in all seven paragraphs of *The Great Learning* (1968–71). It could of course be used to establish the determinations of chance processes. One particular form of this process, where each person reads the same notation, has been described by Michael Parsons:

> The idea of one and the same activity being done simultaneously by a number of people, so that everyone does it slightly differently, 'unity' becoming 'multiplicity', gives one a very economical form of notation – it is only necessary to specify one procedure and the variety comes from the way everyone does it differently. This is an example of making use of 'hidden resources' in the sense of natural individual differences (rather than talents or abilities) which is completely neglected in classical concert music, though not in folk music.

Differences of ability account for the (possible) eventuality of players getting lost in Frederic Rzewski's *Les Moutons de Panurge* (1969) (once you're lost you're encouraged to stay lost) and the (probable) deviations from the written letter of the classics by the members of the Portsmouth Sinfonia.

3 CONTEXTUAL PROCESSES

These are concerned with actions dependent on unpredictable conditions and on variables which arise from within the musical continuity.

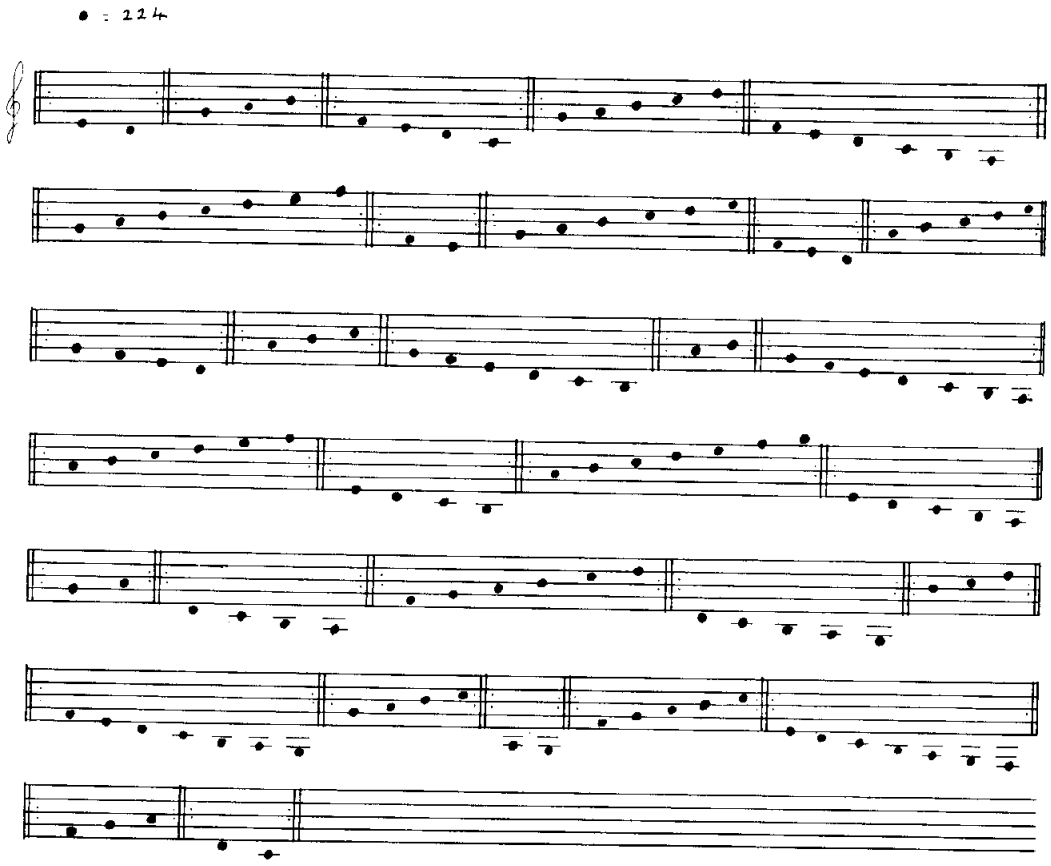
3 Paragraph 7 of Cornelius Cardew's *The Great Learning*

→ sing 8 IF
sing 5 THE ROOT
sing 13(f3) BE IN CONFUSION
sing 6 NOTHING
sing 5 (f1) WILL
sing 8 BE
sing 8 WELL
sing 7 GOVERNED
hum 7
→ sing 8 THE SOLID
sing 8 CANNOT BE
sing 9(f2) SWEPT AWAY
sing 8 AS
sing 17(f1) TRIVIAL
sing 6 AND
sing 8 NOR
sing 8 CAN
sing 17(f1) TRASH
sing 8 BE ESTABLISHED AS
sing 9 (f2) SOLID
sing 5 (f1) IT JUST
sing 4 DOES NOT
sing 6 (f1) HAPPEN
hum 3 (f2)
→ speak 1 MISTAKE NOT CLIFF FOR MORASS AND TREACHEROUS BRAMBLE

NOTATION
→ The leader gives a signal and all enter concertedly at the same moment. The second of these signals is optional; those wishing to observe it should gather to the leader and choose a new note and enter just as at the beginning (see below).
"sing 9(f2) SWEPT AWAY" means: sing the words "SWEPT AWAY" on a length-of-a-breath note (syllables freely disposed) nine times; the same note each time; of the nine notes two (any two) should be loud, the rest soft. After each note take in breath and sing again.
"hum 7" means: hum a length-of-a-breath note seven times; the same note each time; all soft.
"speak 1" means: speak the given words in steady tempo all together, in a low voice; once (follow the leader).

PROCEDURE
Each chorus member chooses his own note (silently) for the first line (IF eight times). All enter together on the leader's signal. For each subsequent line choose a note that you can hear being sung by a colleague. It may be necessary to move to within earshot of certain notes. The note, once chosen, must be carefully retained. Time may be taken over the choice. If there is no note, or only the note you have just been singing, or only a note or notes that you are unable to sing, choose your note for the next line freely. Do not sing the same note on two consecutive lines.
Each singer progresses through the text at his own speed. Remain stationary for the duration of a line; move around only between lines.
All must have completed "hum 3(f2)" before the signal for the last line is given. At the leader's discretion this last line may be omitted.

The selection of new pitches in *The Great Learning* Paragraph 7 is an example of this process, originated by Christian Wolff whose music presents a comprehensive repertoire of contextual systems. One of the 'movements' of *Burdocks* (1970), for instance, is for an orchestra made up of at least fifteen players, each of whom chooses one to three sounds, fairly quiet. Using one of these each time, you have to play as simultaneously as possible with the next sound of the player nearest to you; then with the next sound of the next nearest player; then with the next nearest after him, and so forth until you have played with all the other players (in your orchestra, or if so determined beforehand, with all players present), ending with the player farthest away from you. Rzewski's 'improvisation plan' for *Spacecraft* (1968) also perhaps falls into this category, as do the last two paragraphs of Cardew's *The Great Learning*, and (in an entirely different way) Alvin Lucier's *Vespers* (1968).



4 Hugh Shrapnel's *Cantation I* for piano. The first figure is played by the left hand; after a while the second figure is added with the right hand, then the third figure with the left hand, and so on all through the piece, so that the first note of the new figure coincides with the first note of the existing figure to start with. The tempo is strictly maintained throughout; dynamics are loud and duration between fifteen and thirty minutes.

4 REPETITION PROCESSES

These use extended repetition as the sole means of generating movement – as, for example, in John White's *Machines*, in the 'gradual process music' of Steve Reich, Terry Riley's *Keyboard Studies*, or a piece like Hugh Shrapnel's *Cantation I* (1970). Riley's *In C* (1967) and Paragraph 2 of Cardew's *The Great Learning* use repetition within a 'people' process (or vice versa). In repetition processes the 'unforeseen' may arise (*pace* Feldman) through many different factors, even though the process may, from the point of view of structure, be totally foreseen.

5 ELECTRONIC PROCESSES

These take many forms and are dealt with at length in Chapter 5. A straightforward example is David Behrman's *Runthrough* (1970). This asks only for a particular electronic set-up consisting of generators and modulators with dials and switches and a photocell distributor which three or four people use for improvisation. Behrman writes that 'because there is neither a score nor directions, any sound which results

from any combination of the switch and light positioning remains part of the "piece". (Whatever you do with a surfboard in the surf remains a part of surfboarding.)'

The Unique Moment

Processes throw up momentary configurations which have no sooner happened than they are past: the experimental composer is interested not in the uniqueness of *permanence* but in the uniqueness of the moment. This is a concept which is clearly expressed in Jung's statement about the *I Ching*:

> The actual moment under actual observation appears to the ancient Chinese view more of a chance hit than a clearly defined result of concurring causal chain processes. The matter of interest seems to be the configuration formed by chance events in the moment of observation, and not at all the hypothetical reasons that seemingly account for the coincidence. While the Western mind carefully sifts, weighs, selects, classifies, isolates, the Chinese picture of the moment encompasses everything down to the minutest nonsensical detail, because all of the ingredients make up the observed moment.

By contrast the avant-garde composer wants to freeze the moment, to make its uniqueness un-natural, a jealously guarded possession. Thus Stockhausen (1956):

> A sound which results from a certain mode of structure has no relevance outside the particular composition for which it is intended. For this reason the same 'prepared' element, the same sound or the same 'object' can never be utilized in different compositions, and all the sounds which have been created according to the structural pattern of one composition are destroyed when the composition is completed.

And one finds Boulez, seemingly disconcerted by the impermanence of his sounds, constantly trying to fix them with ever greater precision by obsessive revising, refining and reworking, in the hope of sculpting his sounds into more permanent finality. This attitude is hallowed by tradition, as is shown by Webern's approval of 'the way Beethoven worked and worked at the main theme of the first movement of the "Eroica" until it achieved a degree of graspability comparable to a sentence of "Our Father" '.

Identity

The identity of a composition is of paramount importance to Boulez and Stockhausen, as to all composers of the post-Renaissance tradition. But identity takes on a very different significance for the more open experimental work, where indeterminacy in performance guarantees that two versions of the same piece will have virtually no perceptible musical 'facts' in common. With a score like Cardew's *Treatise* (1963–6) aural

recognizability is both impossible and irrelevant since the (non-musical) graphic symbols it contains have no meanings attached to them but 'are to be interpreted in the context of their role in the whole'. The performer may choose to realize for example, as a circle, some sort of circular sound, movement or gesture; but it is more likely that he will interpret it in a 'non-representational' way by a melody, or silence, or counting, or turning off the lights, or tuning in to a radio signal, or whatever. Each performer is invited by the absence of rules to make personal correlations of sight to sound. These will naturally change from one performance to another, whose time scale will be totally different. What price identity here with a score which is in no way a compendium or reduction of all possible realizations?

As regards the relationship between one performance and another Cage wrote in 1958:

> A performance of a composition which is indeterminate of its performance is necessarily unique. It cannot be repeated. When performed for a second time, the outcome is other than it was. Nothing therefore is accomplished by such a performance, since that performance cannot be grasped as an object in time.

Recordings of the most open processes are also misleading. Both Cage and Cardew have drawn attention to this. Talking of a composition which is indeterminate of its performance, Cage says that a recording of such a work 'has no more value than a postcard; it provides a knowledge of something that happened, whereas the action was a non-knowledge of something that had not yet happened.' Cardew is concerned about the practical problem of reproducing improvisation where documents such as tape recordings are essentially empty; they preserve chiefly the form that something took, give at best an indistinct hint as to the feeling, and cannot of course convey any sense of time and place. From his experience with AMM he found that it is impossible to record with any fidelity a kind of music that is actually derived from the room in which it is taking place – its size, shape, acoustical properties, even the view from the window, since what a recording produces is a separate phenomenon, something really much stranger than the playing itself. 'What we hear on tape or disc is indeed the same playing but divorced from its natural context.'

Difficulties also arise when one tries to explain the most open processes. A description of a particular performance may tell you little of its musical concepts, and a description of the score may tell you too much about possible interpretations to be of any use. With Cage's *Cartridge Music*, Behrman's *Runthrough* or Lucier's *Vespers* the difficulties are less obvious because the type of sound in any one version will be recognizably similar to that of another (though a lot of other aspects will be different). But separate performances of Cage's *Fontana Mix* (1958) or of Cardew's *Treatise* may exhibit no family likenesses. Cage's own

tape collage versions (available on record ironically) are only *versions*, momentary isolations or interruptions of an unrestricted process; they in no way constitute the identity of the process called *Fontana Mix*.

4′33″ raises similar questions. Since its first and most famous performance was given by a pianist (David Tudor) it is thought of as a piece for piano. But the score does not specify a particular instrument, and strictly speaking *4′33″* is not a piece *for* any instrument, but rather a piece *by means of* any instrument. Reference to the score will show that the actions David Tudor chose for his realization in the Maverick Concert Hall, Woodstock, New York on 29 August 1952 would only mistakenly be considered as *the* identity of the piece. Literary, art and music critics who use the silent piece as an aesthetic bargaining counter have shown little interest in the reasons why Tudor did what he did and in whether what he did is more, or less, important than the fact of doing it.

At the first performance Tudor, seated in the normal fashion on a stool in front of the piano, did nothing more nor less than silently close the keyboard lid at the beginning of, and raise it at the end of each time period. The score had not of course explicitly asked him to make these – or any – actions, but they were implied because some means or other had to be devised to observe the three time lengths without causing to be heard any sounds not specified by the composer.

Time

The attitude towards time expressed by *4′33″* had its origins in the rhythmic structures that Cage worked with in the thirties and forties (see Chapter 2) and it became the basis of all Cage's music which involves the measurement (exact or approximate) of time. This attitude was of such fundamental importance to experimental music that Robert Ashley could state with certainty (in 1961):

> Cage's influence on contemporary music, on 'musicians' is such that the entire metaphor of music could change to such an extent that – time being uppermost as a definition of music – the ultimate result would be a music that wouldn't necessarily involve anything but the presence of people . . . It seems to me that the most radical redefinition of music that I could think of would be one that defines 'music' without reference to sound.

Time may initially be nothing more than a frame to be filled. 'Form is the length of programmed time' declared Christian Wolff, a statement Cage explains more fully in his comment on Wolff's *Duo II for Pianists* (1958):

> The ending, and the beginning, will be determined in performance, not by the exigencies interior to the action but by circumstances of the concert occasion. If the other pieces on the programme take forty-five minutes of time and fifteen minutes more are required to bring the programme to a proper length, *Duo II for Pianists* may be fifteen minutes long. Where only five minutes are available, it will be five minutes long.

Needless to say this has nothing to do with partial or incomplete performances: processes are by definition always in motion and can be equally well expressed in two minutes or twenty-four hours. 'Beginnings and ends are not points on a line but limits of a piece's material . . . which may be touched at any time during the piece. The boundaries of the piece are expressed, not at moments of time which mark a succession, but as margins of a spatial projection of the total sound structure.' (Christian Wolff). And since the experimental composer is not dealing in artefacts, the elaborate time-structures erected by Stockhausen, for example, are unnecessary: primary time-calculations may be very simple and direct.

One can distinguish a number of methods of releasing time in experimental music. A time frame may be chosen at random and then filled with sounds. Or temporal determinations may be made by some method or other and then measured according to any time units whatsoever, from the shortest possible to the longest possible. For Cage's *Atlas Eclipticalis* or La Monte Young's *Poem* (to name but two) 'the duration may be anything from no time to any time'. The work may last the duration of a natural event or process – the time it takes birthday cake candles to burn out (George Brecht's *Candle Piece for Radios*) or the time it takes for swung microphones to come to rest (Steve Reich's *Pendulum Music*). Or the duration may be determined simply by the time it takes to work through the given material. In some pieces (such as Reich's *Phase Patterns*, Gavin Bryars' *Jesus' Blood Never Failed Me Yet* or Christopher Hobbs's

5 Steve Reich's *Pendulum Music*

PENDULUM MUSIC

FOR MICROPHONES, AMPLIFIERS, SPEAKERS AND PERFORMERS

2, 3, 4 or more microphones are suspended from the ceiling by their cables so that they all hang the same distance from the floor and are all free to swing with a pendular motion. Each microphone's cable is plugged into an amplifier which is connected to a speaker. Each microphone hangs a few inches directly above or next to it's speaker.

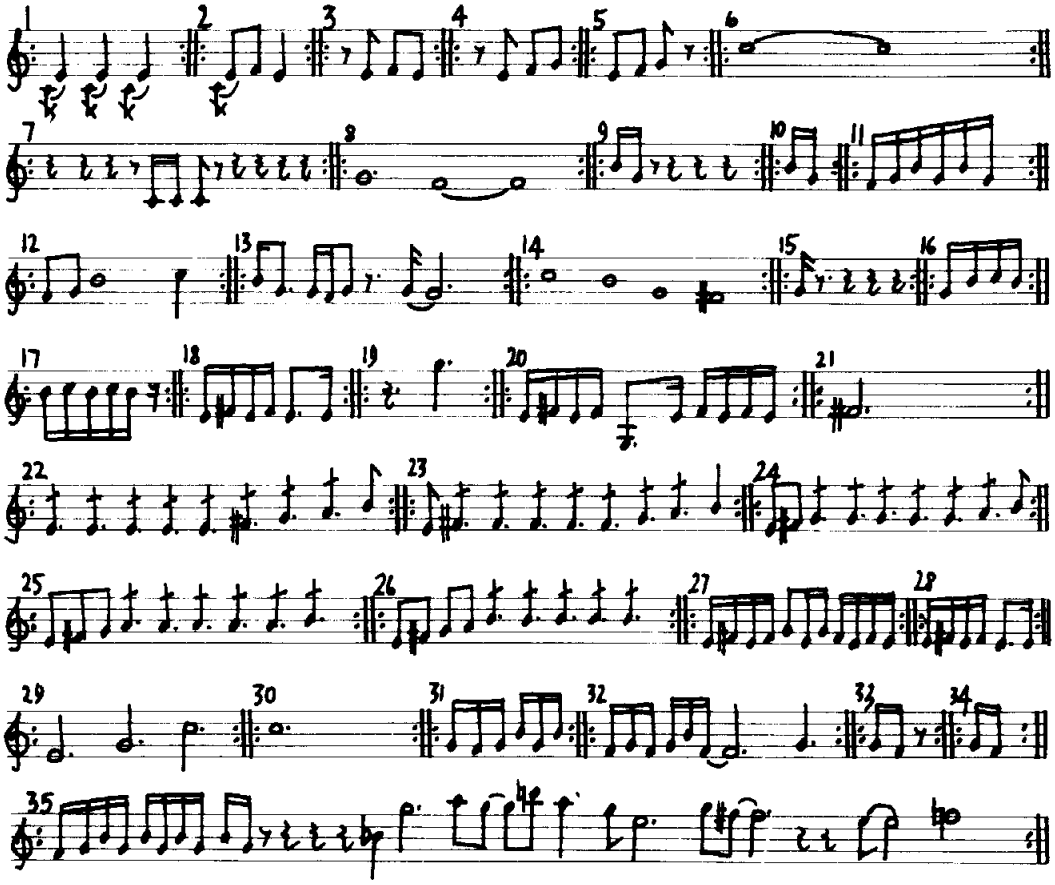
The performance begins with performers taking each mike, pulling it back like a swing, and then in unison releasing all of them together. Performers then carefully turn up each amplifier just to the point where feedback occurs when a mike swings directly over or next to it's speaker. Thus, a series of feedback pulses are heard which will either be all in unison or not depending on the gradually changing phase relations of the different mike pendulums.

Performers then sit down to watch and listen to the process along with the audience.

The piece is ended sometime after all mikes have come to rest and are feeding back a continuous tone by performers pulling out the power cords of the amplifiers.

B

Steve Reich 8/68



6 Terry Riley's *In C*, the first 35 of 53 figures (not the composer's MS).

The Remorseless Lamb) the working-through may be similar to that of traditional music but in Paragraphs 2, 6 or 7 of *The Great Learning*, or in Riley's *In C*, where each performer moves through at his own speed, the duration of the piece is dependent on the inner workings of the process.

But any temporal decision made before a performance is transcended by the experience of time as it actually *does* pass, for, paradoxically, the sounds flow free of any formalistic restraint. The audience may *see* Tudor dividing the available time into three in his version of *4′33″* but this may not divide their *listening* into three periods. And in works such as *Cartridge Music* where the temporal measurements may have to do with perceptible things like turning amplifiers on and off, this, too, is an independent, external programme, which may have no audible connection with the nature of the sounds themselves.

As an example of how a 'working-through' notation is experienced as time, there is the story that Dick Higgins tells of a performance of a piece by George Brecht given by Cage's class at the New School for Social Research around 1958. Each performer had to do two different things

once only, and Cage suggested that they should do them in the dark so that they could not tell, visually, when the piece was over. 'The result was extraordinary,' says Higgins, 'both for its own sake and for the extraordinary intensity that appeared in waves, as we wondered whether the piece was over or not, what the next thing to happen would be.' Afterwards the performers were asked how long they thought they had been in the dark; guesses ranged from four to twenty-four minutes: the actual duration had been nine minutes. Perhaps this kind of experiential time was what was in Feldman's mind when he spoke of working with 'Time in its unstructured existence . . . how Time exists before we put our paws on it . . . our minds, our imagination, into it.'

Performing

Experimental music thus engages the performer at many stages before, above and beyond those at which he is active in some forms of western music. It involves his intelligence, his initiative, his opinions and prejudices, his experience, his taste and his sensibility in a way that no other form of music does, and his contribution to the musical collaboration which the composer initiates is obviously indispensable. For while it may be possible to view some experimental scores only as concepts, they are, self-evidently (specific or general), directives for (specific or general) action. Experimental music has, for the performer, effected the reverse of Duchamp's revolution in the visual arts. Duchamp once said that 'the point was to forget *with my hand* . . . I wanted to put painting once again at the service of my mind.' The *head* has always been the guiding principle of Western music, and experimental music has successfully taught performers to remember with their hands, to produce and experience sounds physiologically.

Tasks

The freedom of action that experimental scores give may be to some extent an illusion. In Lucier's *Vespers* echo-locating devices are to be freely adjusted by the performers to produce the best results from what they hear feeding back from the particular environment that is being explored. But Lucier tells the performers that 'any situations that arise from personal preferences based on ideas of texture, density, improvisations or composition that do not directly serve to articulate the sound personality of the environment should be considered deviations from the task of echo-location.'

The significance of Lucier's instructions extends beyond *Vespers* for he very specifically demands two conditions which explode a number of myths surrounding experimental music.

People tend to think that since, within the limits set by the composer, anything may happen, the resulting music will therefore be unconsidered, haphazard or careless. The attitude that experimental music breeds amongst its best performers/composers/listeners is not what Cage called 'carelessness as to the result' but involvement and responsibility of a kind rarely encountered in other music. What degree of 'carelessness', how much 'self-expression' (self-discovery is quite another matter) is one to find in this account by John Tilbury of a performance he gave of Takehisa Kosugi's *Anima 7* (1964), a work which consists of performing any action as slowly as possible?

> The trouble with playing the piano is that once you have made the action to produce the sound, the sound tends to free itself of your control. The performer is concerned primarily then with the action, not with the result; if indeed the two are separable. This problem of defining where the performance of a sound begins and ends is perfectly exemplified in Kosugi's piece. In a London performance last year I decided to perform the action to produce B flat on the piano as slowly as possible. Several problems presented themselves, the most taxing of which were how, where, and when to begin, and at what point to end. By using this slow-motion procedure a simple reflex action turns into an inhibiting dilemma. For example, was it possible to perform the action to produce the sound without performing the sound? If I sounded the B flat, would not that be an 'excess'? Does the action begin when my hand is at rest on my leg, or from the moment I approach or sit at the piano? In fact, I began according to a stop watch, a solution I suspect Kosugi would have approved of.

The crucial word in Lucier's instructions for *Vespers* is *task*. For each experimental composition presents the performer with a task or series of tasks which extend and re-define the traditional (and avant-garde) performance sequence of reading-comprehension-preparation-production. David Tudor's task in *4′33″* was merely to indicate the prescribed lengths of silence.

Unpredictable difficulties encountered in performance

Apparently routine tasks may have an alarming tendency to breed random variables which call for a heroic (unsung, unnoticed) virtuosity on the part of the performer. The difficulties may be of his own making, as in Tilbury's case, because he chose to consider the ramifications of Kosugi's quite unobscure directive in relation to the act of performance. But the problems may develop and pile up uncontrollably during the performance of an activity which on the surface seems to be mere routine.

Cardew's perceptive consideration of the implications of the words 'as possible' as applied to 'uniformity and regularity' in La Monte Young's *X (any integer) for Henry Flynt*, an unnotated piece of the early sixties, in which a heavy sound (such as a cluster) is to be repeated as uniformly, as regularly, and as loudly as possible a relatively large number of times, shows his awareness of the nature of this problem (just as the

7 Cardew's *Schooltime Special* (1968) makes the performer responsible for a specific decision on each musical event.

Read the questions of A in sequence until you make a Yes or reach the end (silence)

If you make a Yes in A move to B and answer questions at random

Spend plenty of time on A and B before tackling C and D

Read the questions of C in sequence (possibly continuing B the while) until you make a Yes or reach the end (silence)

If you make a yes in C move to D and answer questions at random

Take breaks for consideration as required

Silent participants may recommence with A at any time

A

(1) Do you want to sing a note? Yes? Sing one.
(2) No? Do you want to sing a noise? Yes? Sing one.
(3) No? Do you want to play a note? Yes? Play one.
(4) No? Do you want to play a noise? Yes? Play one.
(5) No? Do you want to make a note? Yes? Make one.
(6) No? Do you want to make a noise? Yes? Make one.
(7) No? Do you want to hear a note? Yes? Hear one.
(8) No? Do you want to hear a noise? Yes? Hear one.
(9) No? Do you want to leave the room? Yes? Leave it.
(10) No? Stay, silent.

B

Can the note or noise rise? Yes? Raise it.
No? Hold it constant.
Can it get louder? Yes? Get louder.
No? Cut it off.
Can it vibrate? Yes? Vibrate it.
No? Reiterate it.
Can you hold it long? Yes? Hold it long.
No? Hold it as long as possible.
Can it change colour? Yes? Change its colour.
No? Let it change in any way of its own accord.

C

Does the music set you in motion? Yes? Move around (dance).
No? Does it hurt your ears? Yes? Duplicate a sound close to you.
No? Does it let your mind wander? Yes? Duplicate a sound far away (real or imaginary).
No? Does it accelerate or retard your heartbeat? Yes? Trace the tempo audibly.
No? Does it fray your nerves? Yes? Gyrate and wail.
No? Does it make you feel ridiculous? Yes? Laugh and recommence as from A(2).
No? Does it remind you of something? Yes? Pursue and substantiate the memory.
No? Does it suggest an impression (a picture)? Yes? Add touches to the picture.
No? Does it affect you at all (in an unspecified way)? Yes? Define it verbally, and enhance the affect.
No? Be silent.

D

Do you want the music to go on for ever? Yes? Listen.
No? Exert yourself to the maximum.
Do you want someone to tell you what to do? Yes? Tell your neighbour what to do.
No? Move out of range.
Do you want the music to stop now? Yes? Block your ears.
No? Breathe on it to keep it glowing.
Do you notice gaps in the total sound spectrum? Yes? Trickle into them.
No? Create some.
Do you need more questions? Yes? Make them up.
No? Close your eyes and follow your inclination.

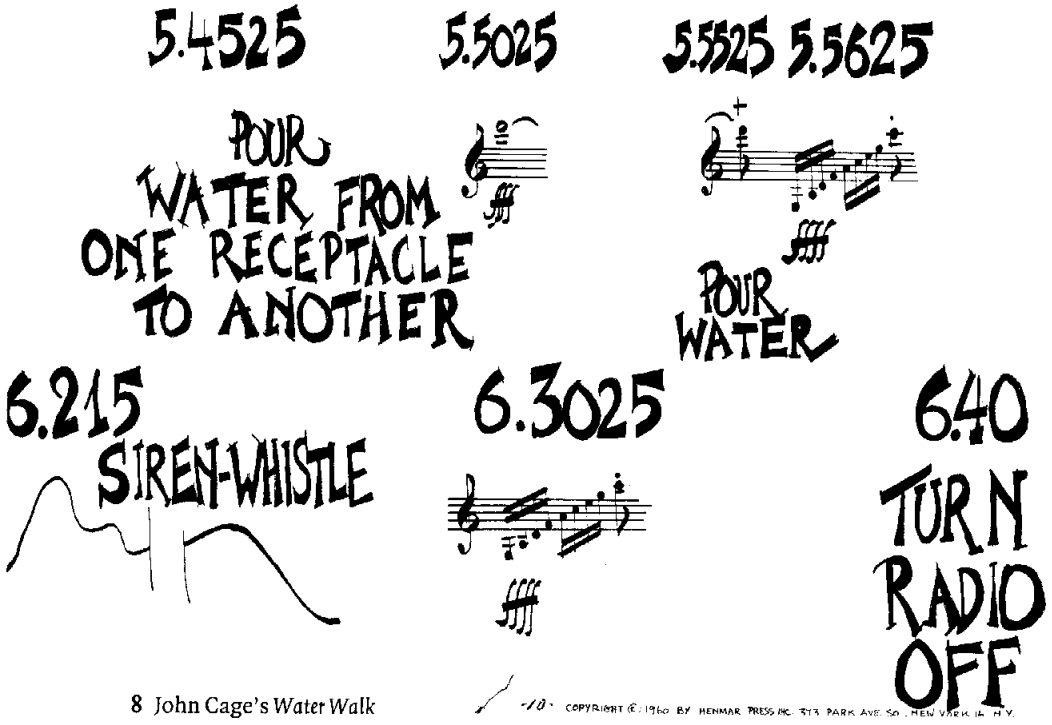
demands made on each individual performer in his *Schooltime Special* provide a strong, programmed antidote to automatic or casual playing in a totally different situation). He enquires as to what is the model for uniformity. The first sound? Or does each sound become the model for the one succeeding it? If the former, the first sound has to be fixed in the mind as a mental idea which all the remaining sounds are to approach as closely as possible. If the latter method is chosen, constant care has to be taken to assimilate the various accidental variations as they occur. Cardew points out that David Tudor approached the piece in this way and on noticing that certain keys in the centre of the keyboard were not being depressed he made it his task to ensure that these particular keys continued to be silent. This task of assimilating and maintaining accidental variations, if logically pursued, requires superhuman powers of concentration and technique. But, he says, it must be remembered that although uniformity is demanded ('as far as possible'), what is desired is variation. 'It is simply this: the variation that is desired is that which results from the human (not superhuman) attempt at uniformity.'

Similarly chance procedures have so strong an ethical value for Cage that they are seen not simply as generators (or disorganizers) of sounds, but as quasi-natural forces whose results are accepted totally and unquestioningly, without any adjustment being made. But complete acceptance of the results may make the task of the performer (in this case, Cage's *Water Walk* of 1959) an unexpectedly difficult one:

> And then I made lists of actions that I was willing to involve myself in. Then through the intersection of those curved lines and the straight line (the materials of *Fontana Mix*) I could see within what amount of time I had, for instance, to put a rose in a bathtub, if that came up. If at the same time playing a particular note – or not a particular note – on the piano came up, those two things had to get done within the time allotted. I ended up with six parts which I then rehearsed very carefully, over and over again with people watching me and correcting me, because I had to do it in three minutes. It had many actions in it and it demanded what you might call virtuosity. I was unwilling to perform it until I was certain that I could do it well.

The Game Element

The tasks which the co-ordination processes of Christian Wolff set the player are of a different order. *For 1, 2 or 3 People* (1964) contains four symbols which mean: (1) play after a previous sound has begun, hold till it stops; (2) start anytime, hold until another sound starts, finish with it; (3) start at the same time (or as soon as you are aware of it) as the next sound, but stop before it does; (4) start anytime, hold till another sound starts, continue holding anytime after that sound has stopped. The fact that notations like these give the players no advance warning led David Behrman to write:



8 John Cage's *Water Walk*

The player's situation might be compared to that of a ping-pong player awaiting his opponent's fast serve: he knows what is coming (the serve) and knows what he must do when it comes (return it); but the details of how and when these take place are determined only at the moment of their occurrence.

Dick Higgins coined the term 'Games of Art' in connection with certain forms of experimental music, and Professor Morse Peckham has written:

> The role of the game player is to present his opponent, who may be himself, as in solitaire or fishing, with an unpredicted situation which will force him to behave in a particular way; while the player faced with such a situation has as his role the task of rearranging the situation so that the tables are turned. Playing a game involves continuous risk-running. The rules place limits on what may be done, but more importantly, they provide guides to improvisation and innovation. Behaviour is aimed at following rules in predictable situations and interpreting rules in unpredicted ones. Hence, an important ingredient of game playing consists of arguments about how the rules should be interpreted.

Rules and their (subjective) interpretation

Peckham was writing about games in general, but what he has to say is very relevant to the mainly solitaire-type games of experimental music. The composer gives the performer freedoms, which may take him further than the composer may have envisaged: 'I think composition is a serious occupation and the onus is on the performer to show the

composer some of the implications and consequences of what he has written, even if from time to time it may make him (the composer of course) look ridiculous. What he writes and what you read are two different things.' (John Tilbury, 1969) And Cardew reinforces Peckham's final point about arguments over the rules in one essay in which he submitted the rules (or lack of them) of Morton Feldman's *Piano Three Hands* to close analytical scrutiny, and in another called 'On the Role of the Instructions in Indeterminate Music'. In this he wrote that very often a performer's intuitive response to the notation influences to a large extent his interpretation of the instructions. He influences the piece's identity, in fact, at the moment when he first glances at the notation and jumps to a conclusion about what the piece is, and what is its nature. Then he turns to the instructions, which on occasion may explain that certain notations do not for instance mean what many people might at first blush expect, and these he proceeds to interpret in relation to his preconceptions deriving from the notations themselves.

Just as the interpretation of the rules may be taken out of the composer's hands and become the private concern of the performer, so may the rules themselves. Some pieces intentionally make explicit the subjectivity which is at the root of a large number of experimental scores. Giuseppe Chiari's instructions for his *Lavoro* (1965) provide a simple example: 'All round the performer are many different things placed in the most complete disorder. He arranges them in the proper order. He follows his own idea of what their proper order is.' The conditions on which Frederic Rzewski's *Selfportrait* (1964) depends (as distinct from the decisions to be made in performance) may arise from qualities of which only the performer is aware. Four types, or origins, of sound are specified: (1) 'interior' sounds, 'merely thought or expressed as vague, introverted, or incomplete actions, e.g. barely audible or unclear, functioning as silence'; (2) sounds made by the performer's body or by objects attached to his body, such as clothing; (3) sounds made by objects or instruments directly confronted, or mechanically manipulated, by the performer; (4) sounds of an independent character, produced by means external to the performer or his sphere of musical influence.

Not unrelated to this privacy are some of Gavin Bryars' works, especially a piece actually called *Private Music* (1969) in which all activities are to be private and self-insulated: 'simply keep your privacy private depriving others of the possibility of your privacy'. The first of Christopher Hobbs' *Two Compositions, 21 May 1969* requires another subjective procedure, that of observation: 'Observe activities in the environment which are unintentional on your part (silence). Make actions or cause actions to be made, in such a way that the activities of the environment seem intentional and the actions which you make or cause to be made seem like silence.' In fact, many scores are equally valid as means of *observing*

as of *producing* sounds or actions. Some of Brecht's event-scores carry such instructions as 'discover or arrange' while the small print of Cage's *Variations III* reads: 'Some or all of one's obligations may be performed through ambient circumstances (environmental changes) by simply noticing or responding to them.'

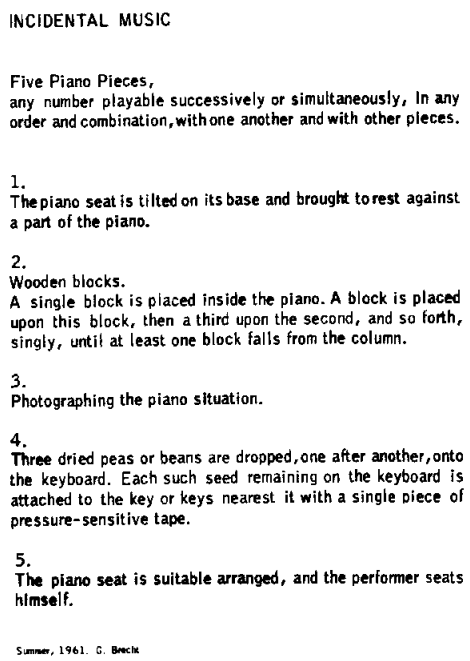
The Instrument as Total Configuration

Something else that emerges from Tudor's version of *4'33"* is the notion that the use of a musical instrument need not be limited by the boundaries erected by tradition. Experimental music exploits an instrument not simply as a means of making sounds in the accepted fashion, but as a total configuration – the difference between 'playing the piano' and the 'piano as sound source'.

In the past, piano music viewed the keyboard-hammer-string mechanism from the vantage-point of the keyboard alone. (There have been exceptions, of course – Chopin's view of the art of pedalling as a 'sort of breathing' and Debussy's desire to 'forget that the piano has hammers'.) Experimental composers have extended the functions of the basic mechanism. They have brought about the alteration of timbre by inserting objects between the strings (Cage's prepared piano) and by applying various electronic treatments of which the simplest is amplification. The piano becomes more than ever before a keyboard-operated percussion instrument. Cage devised the prepared piano as a one-man percussion band and Steve Reich describes his *Phase Patterns* as 'literally drumming on the keyboard'. Alternatively, auxiliary objects may be placed between the keyboard and the performer who activates them to produce sounds, as in Kosugi's *Distance*; these objects may be viewed both as extensions of the performer and extensions of the keyboard. And forget the hammer mechanism, replace it with any kind of 'manual' operation, and the strings may be activated in any way; they can be hit or scraped or bowed, with the fingers, hands or any other mechanical aids – the piano has become a pure percussion instrument.

Once you move to the exterior of the piano you find a number of wooden and metal surfaces which can be 'played'. Again it was Cage who pioneered this with the accompaniment to *The Wonderful Widow of Eighteen Springs* (1942) which is performed by the percussive action of the fingertips and knuckles on the closed keyboard lid. When you have realised that the piano does have an outside then a series of extensions of the concept 'piano' become possible. The instrument can be seen as just a large brown, mainly wooden object, on legs with wheels, of a particular shape, having curious mechanical innards and serving as a musical instrument. The inner mechanism may be completely disregarded (does it then cease to be a piano? – any complex object has a number of uses, most of them only partial) so that the piano can be treated as an object

9 George Brecht's *Incidental Music*



INCIDENTAL MUSIC

Five Piano Pieces,
any number playable successively or simultaneously, in any order and combination, with one another and with other pieces.

1.
The piano seat is tilted on its base and brought to rest against a part of the piano.

2.
Wooden blocks.
A single block is placed inside the piano. A block is placed upon this block, then a third upon the second, and so forth, singly, until at least one block falls from the column.

3.
Photographing the piano situation.

4.
Three dried peas or beans are dropped, one after another, onto the keyboard. Each such seed remaining on the keyboard is attached to the key or keys nearest it with a single piece of pressure-sensitive tape.

5.
The piano seat is suitable arranged, and the performer seats himself.

Summer, 1961. G. Brecht

with surfaces to be hit or painted, have things thrown at, left on, hidden in, moved about or fed with hay. (Needless to say it is in no sense a definition of experimental music that pianos should be used in this way – Feldman's keyboard writing, for instance, has always been every bit as 'sensitive' and 'musical' as Debussy's or Webern's.)

Cardew's *Memories of You* (1964), for piano solo, sums up this new approach to the piano. Its notation consists of a series of miniature grand piano outlines on or off which tiny circles are placed. Each circle gives the location of a sound relative to a grand piano: the sound begins and/or ends at that point. Different kinds of circle indicate whether the sounds are to be made at floor level, above floor level or both. It is not specified whether the sounds are to be made on or with the piano, or with other instruments, or whether the sounds should be 'musical' or made on or with the environment. Thus the piano becomes a kind of 'umbrella' covering a range of sounding activities whose only direct connection with the piano may be the fact that they take place with reference to the 'piano space'.

Music as Silence, Actions, Observations – and Sounds

Tudor's version of *4′33″* also showed that the performer is not obliged to begin from the traditional starting point of causing sounds to be made and heard by means of a musical instrument. For when Tudor does not need to make sounds to give a musical performance; when Cage declares 'Let the notations refer to what is to be done, not to what

is heard, or to be heard';* when Ashley refers to time, not sounds, as the ruling metaphor of music; and when the slow-motion procedure of Kosugi's *Anima 7* could be applied to any action – then we realize that in experimental music sounds no longer have a pre-emptive priority over not-sounds. Seeing and hearing no longer need to be considered separately, or be combined into 'music theatre' as an art-form separate from, say, instrumental music (as it tends to be with the avant-garde). Theatre is all around us, says Cage, and it has always hung around music – if only you let your attention be 'distracted' from the sounds: Cage prefers the sight of the horn player emptying out the spit from his instrument to the sounds the orchestra is making; you may prefer to watch Bernstein with the volume control turned down to zero.

Who are the Performers?

Understandably, in view of the kind of tasks set, the extraordinary range of often demanding musical and para-musical skills called upon, experimental music has developed its own breed of performers and tightly-knit performing groups – Tudor, Rzewski, Tilbury, Cage, Cardew, Skempton, Feldman (even), the Sonic Arts Union and the Scratch Orchestra, to whom experimental music is more than just a 'kind of music' to be performed; rather, a permanent creativity, a way of perceiving the world. Significantly only Tilbury and (in the earlier part of his career) Tudor in this list are strictly *performers only*; all the others are composers who took up performance – perhaps to protect their scores from the misunderstandings their very openness may encourage, or because they were attracted by the freedoms they allowed, or simply because the most direct way of realizing their performance-proposals was to realize them themselves. And in the same way, some performers, seeing how little work the act of composition may involve, have in turn become composers. The work of Rzewski and the Scratch Orchestra in the late sixties went a long way towards channelling and releasing the creativity everybody has within them.

Listening

The third component of Cage's compositional 'trinity', listening, implies the presence of someone involved in seeing and hearing. But need this be 'the audience' as we have come to consider it? For experimental music emphasizes an unprecedented fluidity of composer/performer/

* Cage's declaration, consistent with de Kooning's 'The past doesn't influence me, I influence it,' gives one a new perspective on old music: the note C in a Mozart piano sonata means 'hit that piece of ivory there, with that force and for that long.'

listener roles, as it breaks away from the standard sender/carrier/receiver information structure of other forms of Western music.

In experimental music the perceiver's role is more and more appropriated by the performer – not only in scores like Toshi Ichiyanagi's *Sapporo* (1962) which has a sign which tells the player to listen to what other players are doing, or in music like Christian Wolff's which needs a high degree of listening and concentration. Dick Higgins' account of the Brecht performance in the dark at the New School showed that the task (of performing two actions) had become less important for the individual than the perceptual and experiential situation that was brought about. (This does of course leave room for perceiving to be done by any 'audience' that may happen to be present.) And if the performer's participation is passive, involving observation rather than action, the work is not invalidated or changed. For Cage at least experimental music is not concerned with 'communication' as other music is considered to be. He once said: 'We are naïve enough to believe that words are the most efficient form of communication.' On another occasion he is reported to have said: 'Distinguish between that "old" music you speak of which has to do with *conceptions* and their *communication*, and this new music, which has to do with *perception* and the arousing of it in us. You don't have to fear from this new music that something is bad about your liking your own music.'

A task may have a far greater value for the performer than it has for the audience. Certain tasks may seem hermetically sealed to the listener, self-evident games whose rules are not publicly available, mysterious rites with professionally guarded secrets. For the performer the tasks may be self-absorbing, or of only private significance, so that the question of 'projection' is not part of his concern. Sometimes the materials of the task are so strong in themselves as to be automatically self-projecting, as in Ashley's *The Wolfman*, Cardew's *The Great Learning* Paragraph 2, La Monte Young's drone music, and in the extravagant actions Cage and Fluxus composers sometimes chose to busy themselves with. On occasions where more than one thing is going on at a time (Cage, Scratch Orchestra) one activity may completely blot out another. This was the case when Tilbury was performing *Anima 7* within a Scratch Orchestra presentation: did anybody notice that he was doing what he was doing? And if someone did notice (suddenly), was Tilbury's activity made into a different kind of art?

The tasks of experimental music do not generally depend on, and are not markedly changed by, any response from an audience, although the atmosphere in which these tasks are accomplished may be completely changed by audience response. Experimental music has, if nothing else, at least the virtue of persistence which keeps it going throughout any uncalled-for reactions it quite often provokes. Hostile listeners quite often consider that their protest sounds are just as good as those of the

performers; John Tilbury pointed out the difference on one such occasion: that whereas the audience's sounds were uncontrolled, instinctive gut-reactions, the performer knew exactly what he was doing, producing his sounds with consideration and control.

What then is the function of the audience in experimental music? Does 'listening's a third' in fact leave nothing for the listener to do? Quite the contrary – the listener, too, has a far more creative and productive role than he had before. This follows from Cage's rejection of the notion of entertainment as 'being done to':

> Most people think that when they hear a piece of music, they're not doing anything but that something is being done to them. Now this is not true, and we must arrange our music, we must arrange our art, we must arrange everything, I believe, so that people realize that they themselves are doing it, and not that something is being done to them.

Cage is not giving a mandate for audience participation: he is aiming at the fullest possible engagement of the listener and the testing of his perceptual faculties.

But what then is perceived? Perhaps nothing, as when you are present at a performance of La Monte Young's *Poem* when the chance procedures have determined a duration of no length ('the composition may be any length, including no length'). Or very little, if you had witnessed the first performance of Cage's *Imaginary Landscape No. 4* for 12 radios in 1951. This was performed so late at night that very few of the specified wavelengths were still broadcasting, so that, according to the veteran composer Henry Cowell, 'the "instruments" were unable to capture programmes diversified enough to present a really interesting specific result.' But Cowell had been unable to adjust his ears (and his mind) to the actuality of the new music, which is not a music of results. Nor is the need to be 'interesting' a concern of experimental composers – as it is of the avant-garde. Cowell did add: 'Cage's own attitude about this was one of comparative indifference, since he believes the concept to be more interesting than the result of any single performance' – though he seems to have failed to appreciate the implications of this remark.

Focus

Equally important as regards the reception of experimental music is Cage's concept of 'focus'. Focus for Cage is 'what aspect one's noticing'; focus is Cardew hearing Alan Brett playing a Bach Sarabande at the top of a cliff in Dorset – 'from half a mile away by the water's edge I identified the melody quite positively as *Holy Night*.' Focus is the engineer in charge of Cage's recording of his *Indeterminacy* stories in 1958 trying 'to get some kind of balance rather than just letting the loud sounds (made by David Tudor) occasionally drown out my voice. I explained

that a comparable visual experience is that of seeing someone across the street, and then not being able to see him because a truck passes between you.' Focus is the woman at the Black Mountain Happening in 1952 asking Cage which is the best seat and being told that they were all equally good 'since from every seat you would see something different'. Focus is listening closely to the gradually changing patterns arising out of the repetition process in Steve Reich's music. Focus is wandering either physically or perceptually around a Scratch Orchestra multiple-activity presentation, concentrating on a single activity or feature of that activity (sharp focus), or listening, from a fixed position, to everything that is going on (soft focus), allowing for all the possible shifts and gradations of focus in between. For Cage, at least, is 'averse to all those actions that lead toward placing emphasis on the things that happen in the course of a process'.

Cage's crucial decentralization of musical and physical space brings music more into line with painting: 'Observe that the enjoyment of a modern painting carries one's attention not to a centre of interest but all over the canvas and not following any particular path. Each point on the canvas may be used as a beginning, continuing, or ending of one's observation of it.' So that if the listener does not have anything done *to* him, since the composer has not arranged things so that everything is done *for* him, the responsibility for *how* he hears or sees is placed firmly on the functioning of his own perception. The listener should be possessed ideally of an open, free-flowing mind, capable of assimilating in its own way a type of music that does not present a set of finalized, calculated, pre-focused, projected musical relationships and meanings. The listener may supply his own meanings if that is what he wants; or he may leave himself open to taking in any eventuality, bearing in mind George Brecht's proviso that any 'act of imagination or perception is in itself an arrangement, so there is no avoiding anyone making arrangements'. Since the listener may not be provided with the structural signposts (of various shapes and sizes, pointing in various directions) that he is given in other music, everyone has, according to Cage, the opportunity of 'structuring the experience differently from anybody else's in the audience. So the less we structure the occasion and the more it is like unstructured daily life, the greater will be the stimulus to the structuring faculty of each person in the audience. "*If we have done nothing then he will have everything to do.*" ' (My italics)

Music and Life

It is a well-known fact that the silences of *4'33"* were not, after all, silences, since silence is a state which it is physically impossible to achieve. Cage had proved this to his own satisfaction in 1951 when he betook himself to Harvard University where, in an anechoic chamber

– an environment which was as silent as was technologically feasible – he nevertheless heard two unavoidable sounds, one high – the sound of his nervous system, the other low – the sound of his blood circulation. Cage therefore proposed that what we have been in the habit of calling silence should be called what in reality it is, non-intentional sounds – that is, sounds not intended or prescribed by the composer.

4′33″ is a demonstration of the non-existence of silence, of the permanent presence of sounds around us, of the fact that they are worthy of attention, and that for Cage 'environmental sounds and noises are more useful aesthetically than the sounds produced by the world's musical cultures'. *4′33″* is not a negation of music but an affirmation of its omnipresence. Henceforward sounds ('for music, like silence, does not exist') would get closer to introducing us to Life, rather than Art, which is something separate from Life. This would not be 'an attempt to bring order out of chaos nor to suggest improvements in creation, but simply a way of waking up to the very life we're living, which is so excellent once one gets one's mind and one's desires out of its way and lets it act of its own accord' (politically a highly dangerous attitude).

Cage wrote this in 1957, and at that time George Brecht coined the term 'chance imagery', thus placing the artist's 'chance images in the same conceptual category as natural chance images (the configuration of meadow grasses, the arrangement of stones on a brook bottom), and rejecting the idea that an artist makes something "special" and beyond the world of ordinary things'. This explains Cage's attachment to an art which 'imitates nature in its manner of operation', that is, the spontaneous – *natura naturans*, rather than the classified – *natura naturata*, and it accounts for the emphasis in experimental music on operational processes, which ensure a music that appears to happen of its own accord, unassisted by a master hand, as if thrown up by natural forces.

Consistent with these ideas is Morse Peckham's statement: 'A work of art is any perceptual field which an individual uses as an occasion for performing the role of art perceiver,' a definition that correctly leaves open the question as to whether the perceptual field was occasioned by somebody else (a performer) or by the individual himself, and whether this field is an Art context or a Life situation.

The Musical Consequences

What then are the musical resultants of the two separate musical-ideational systems, the experimental and the traditional/avant-garde? I will let the protagonists speak as much as possible for themselves.

In an article written in 1958 Stockhausen drew attention to what he saw as one of the major disadvantages of total serialism:

[In total serialism in general] all elements had equal rights in the forming process and constantly renewed *all* their characteristics from one sound to the next . . . if from one sound to the next, pitch, duration, timbre and intensity change, then the music finally becomes static: it changes extremely quickly, one is constantly traversing the entire realm of experience in a very short time, and thus one finds oneself in a state of suspended animation, the music 'stands still'.

If one wanted to articulate larger time-phases, the only way of doing this was to let one sound-characteristic predominate over all others for some time. However, under the circumstances then prevalent, this would have radically contradicted the sound-characteristics. And a solution was found to distribute in space, among different groups of loud-speakers, or instruments, variously long time-phases of this kind of homogeneous sound-structure.

Christian Wolff wrote in the same year:

Notable qualities of this music, whether electronic or not, are monotony and the irritation that accompanies it. The monotony may lie in simplicity or delicacy, strength or complexity. Complexity tends to reach a point of neutralization; continuous change results in a certain sameness. The music has a static character. It goes in no particular direction. There is no necessary concern with time as a measure of distance from a point in the past to a point in the future, with linear continuity alone. It is not a question of getting anywhere, of making progress, or having come from anywhere in particular, of tradition or futurism. There is neither nostalgia or anticipation.

It is interesting to compare the reactions of these two composers to certain conditions common to both avant-garde and experimental music of the fifties – sameness, stasis, lack of direction. Stockhausen is speaking of an unwanted situation needing to be remedied by his intervention, Wolff of a situation he is quite happy to accept, leaving sounds to go their own way.

But what were Stockhausen's reasons for bending the rules without contradicting the authority of the Idea? The composer was nominally in total control of his materials, yet despite (or because of) the rigidity of his control system, the sounds had a tendency to develop, *en masse*, a surrogate life of their own. In order to restore his mastery over his sounds, he had to resort to other means of ordering them, of shaping their movement and identity.

The classical system, and its contemporary continuation (in the hands of Stockhausen, Birtwistle, Berio, Boulez, Maxwell Davies and others) is essentially a system of *priorities* which sets up ordered relationships between its components, and where one thing is defined in terms of its opposite. In this world of relationships dualism plays a large part: high/low, rise/fall, fast/slow, climax/stasis, important/unimportant, melody/accompaniment, dense/open-textured, solo/tutti, mobile/immobile, high profile/low profile, sound/silence, colourful/monochrome – the one only exists in terms of the other. The seemingly experimental plus-minus systems Stockhausen uses in recent works like *Spiral* deal with these

dualisms on a sliding scale – more articulated, slower, lower in pitch, louder, etc. than what has gone before.

This priority system establishes a series of *functions*. The most obvious example in classical music is the 'closing theme' whose function is to end the exposition of a sonata form movement, and which sounds as though it is rounding something off. While the return of the main theme in the newly established home key is obviously shown to its best advantage after a development section whose function is precisely to be tonally unstable. With the expansion of tonality in the early part of this century music lost the possibility of this clear-cut type of musical functionalism; but the need for something arranged and heard in the context of, or in apposition to, something else, still remained. Stockhausen's use of space was a way for him to package his sounds, to shape the sound mass, to set one thing in a calculated relationship to another, and he achieved this by shifting sound blocks around in space.

At the same time as Stockhausen and Wolff, Cage was writing about the need for separating instruments in space as follows:

> [It] allows the sounds to issue from their own centres and to interpenetrate in a way which is not obstructed by the conventions of European harmony and theory about relationships and interferences of sounds. In the case of the harmonious ensembles of European musical history, a fusion of sound was of the essence, and therefore players in an ensemble were brought as close together as possible, so that their actions, productive of an object in time, might be effective. In the case of the performance of music the composition of which is indeterminate of its performance so that the action of the players is productive of a process, no harmonious fusion of sound is essential. A non-obstruction of sounds is of the essence . . . Separation in space is spoken of as facilitating independent action on the part of each performer . . .

What Cage is proposing is a deliberate process of *de*-packaging so that the listener's mobile awareness allows him to experience the sounds freely, in his own way. Stockhausen's processed packaging gives the listener fewer chances of this kind since the major part of the organizing has been done for him. This is as it is in classical systems where the listener is manipulated by a music that progresses as a series of signposts: listen to this here, at this point, in this context, in apposition to this or that; in such a way that your method of listening is conditioned by what went before, and will condition, in roughly the way the composer intends, what comes next. And what in experimental music (say a piece by Feldman) is almost a fact of living, that you should listen from moment to moment, was made by Stockhausen into a fact of structure (Moment Form) where the moments are not heard as-they-happen, but as-they-are-structured (to happen).

The statements which I have used to clarify some of the differences between the experimental and the avant-garde date from the fifties. But a comparison of two more recent statements will show that, despite

Stockhausen's outward conversion to a process-music, he has in fact changed very little – once a European art composer, always a European art composer.

Cage:

I would assume that relations would exist between sounds as they would exist between people and that these relationships are more complex than any I would be able to prescribe. So by simply dropping that responsibility of making relationships I don't lose the relationship. I keep the situation in what you might call a natural complexity that can be observed in one way or another.

Stockhausen:

So many composers think that you can take any sound and use it. That's true insofar as you really can take it and integrate it and ultimately create some kind of harmony and balance. Otherwise it atomizes . . . You can include many different forces in a piece, but when they start destroying each other and there's no harmony established between the different forces, then you've failed. You must be capable of really integrating the elements and not just expose them and see what happens.

(Note the key European avant-garde words, 'integrate', 'harmony', 'balance', which show that the responsibility for making relationships is in the hands of the composer, whereas Cage is far more willing to allow relationships to develop naturally.)

And this is the effect that processes have in experimental music: they are the most direct and straightforward means of simply setting sounds in motion; they are impersonal and external and so they do not have the effect of organizing sounds and integrating them, of creating relationships of harmony as the controlling faculty of the human mind does. If a composer sets up a process which allows each player to move through the material at his own speed, for example, it is impossible for him to draw things together into some kind of calculated image, a particular effect or pattern of logical connections. Rise and fall, loud and soft, *may* occur but they occur spontaneously, so that the old (and new) 'music of climax' is no longer the prevailing model. For all things are now equal and no one thing is given any priority over any other thing.

Merce Cunningham summed up the implications of this situation where priorities no longer exist, where every item is of equal value, as early as 1952:

Now I can't see that crisis any longer means a climax, unless we are willing to grant that every breath of wind has a climax (which I am), but then that obliterates climax being a surfeit of such. And since our lives, both by nature and by the newspapers, are so full of crisis that one is no longer aware of it, then it is clear that life goes on regardless, and further that each thing can be and is separate from each and every other, viz: the continuity of the newspaper headlines. Climax is for those who are swept by New Year's Eve.

One of the automatic consequences, so it appears, of the musical processes employed by experimental composers, is the effect of flattening out, de-focusing the musical perspective. This flatness may be brought about in a situation ranging from uniformity and minimum change – for example, the music of Steve Reich or John White, which consists of a constant or near-constant band of sound from which inessentials have been removed, to one of maximum change and multiplicity – for instance in Cage or the Scratch Orchestra where no attempt is made to harmonize or make coherent any number of hermetic and self-contained 'compartments'. (Cage said in 1961: 'We know two ways to unfocus attention: symmetry is one of them; the other is the over-all where each small part is a sample of what you find elsewhere. In either case, there is at least the possibility of looking anywhere, not just where someone arranged you should.')

Form thus becomes an assemblage, growth an accumulation of things that have piled-up in the time-space of the piece. (Non- or omnidirectional) *succession* is the ruling procedure as against the (directional) *progression* of other forms of post-Renaissance art music. What the painter Brian O'Doherty wrote of Feldman's music can be seen to apply to the music of other experimental composers: 'Sounds do not progress, but merely heap up and accumulate in the same place (like Jasper Johns' numbers). This blurs and obliterates the past, and obliterating it, removes the possibility of a future.'

What is, or seems to be, new in this music? [asked Christian Wolff in 1958]. One finds a concern for a kind of objectivity, almost anonymity – sound come into its own. The 'music' is a resultant existing simply in the sounds we hear, given no impulse by expression of self or personality. It is indifferent in motive, originating in no psychology nor in dramatic intentions, nor in literary or pictorial purposes. For at least some of these composers, then, the final intention is to be free of artistry and taste. But this need not make their work 'abstract', for nothing, in the end, is denied. It is simply that personal expression, drama, psychology, and the like are not part of the composer's initial calculation: they are at best gratuitous.