

Choice and change in Cage's recent music

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It's been twenty years now, and the sixties have been swallowed by history, as clouds swallow a mountain. But many of us still carry a fragment of the constructive anarchy of those years, like a length of wood brought down from the peak. First used as a cudgel and then as a support, it is now a yardstick. We gauge the present by souvenirs of the past.

It's no surprise that by this measure, the sixties and early seventies seem to have been a twist on the curve of history—a peak or a trough, depending on one's orientation. Certainly recent years have witnessed the rebirth of a powerful and pervasive conservatism, manifested not only politically but also socially and aesthetically. People look different now; a curious sort of time-lapse links present style to the 1950s, skipping the intervening years. At the cinema, space westerns have supplanted satire and experiment, with illusion rather than comment the objective. Abbie Hoffman has turned himself in; Jerry Rubin's getting rich. John Lennon is dead.

New music, too, reflects this shift. Whereas the controversies then centered on the place of anarchy in the arts, those today concern the place of order. The transcendent lunacy of an evening with Nam June Paik has been supplanted by the transcendent consistency of one with Steve Reich. Virtuosos who once sought to adapt instantly to unpredictably changing contexts are now devoted to precise replication. Twenty years ago we thought there was more than enough for everyone, and our music manifested this plenitude; now, in an age convinced of scarcity, music makes the most of very scant material.

For many people, John Cage is forever linked with the 1960s. It was certainly then that his influence was most pervasive; he held a variety of prestigious university appointments, published his first two anthologies of lectures and writings, speculated freely on how to improve the world (he only made matters worse), and was interviewed regularly on subjects ranging from cooking to revolution. He toured extensively,

with the Cunningham company and without it; and perhaps more closely than at any other time in his career, he approached that wonderland in which his music and his life would be truly coextensive.

In the years since, unlike other figures from that time (McLuhan, Brown, Fuller), Cage has continued to produce new work at an almost alarming rate. But a change has occurred: in a kind of socio-corporate shuffle, he's been promoted out of his position as guru and into one as elder statesman. The change is not just a function of age; society clearly has decided to use Cage differently. By skewing its questions toward the past, Cage has been induced to look backward, to become an apologist for an era that has ended. In just this way new generations, unable to silence their loquacious elders, deflect their comments from present conditions by asking what it was really like "back then."

But the change embraces more than the public persona. Cage's beard is gone and his hair is short; and though he still wears denims, they seem more a habit than a statement. More significantly, the music is different; in many, many ways it can be argued that Cage's recent compositions manifest the same neo-conservatism that has come to characterize America's political life. Staff-lines have reappeared, sometimes even with meter signatures and notes of fixed durations. Instrumentation is often conventional, unaffected by electronics. Unpredictability has been reduced; in contrast, say, to the scores for the *Variations* (from the mid-sixties), that for *Apartment House 1776* (1976) gives a fairly clear picture of the sounds that will be heard. Critics who once complained about the noisy confusion now grouse about the tedium of so much C major. Something, clearly, has changed; but what, and how much, and how is it to be interpreted?

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It is conventional to partition a composer's life according to musical style, and this can be managed for even so unconventional a figure as Cage. His music falls rather neatly into four periods, with divisions roughly at 1938, 1951, and 1969. The early pieces—equivalent to the "student works" in other composers' careers—are characterized by a systematic chromaticism akin to, but not identical with, twelve-tone technique. Cage wrote only a few pieces in this style, and through most of this period he was also experimenting with music for percussion. The last of the chromatic works, *Metamorphosis*, was completed in 1938, and the following year Cage wrote his first extended piece using durational structures, the *First Construction in Metal*.

For the next twelve years Cage's music was regulated by a precise and categorical aesthetic. Composition was divided into four com-

ponents—structure, method, materials, and form—which Cage later described thus:

By “structure” was meant the division of a whole into parts; by “method,” the note-to-note procedure. Both structure and method (and also “material”—the sounds and silences of a composition) were, it seemed to me then, the proper concern of the mind (as opposed to the heart) (one’s ideas of order as opposed to one’s spontaneous actions); whereas the two last of these, namely method and material, together with “form” (the morphology of a continuity) were equally the proper concern of the heart. Composition, then, I viewed . . . as an activity integrating the opposites, the rational and the irrational, bringing about, ideally, a freely moving continuity within a strict division of parts, the sounds, their combination and succession being either logically related or arbitrarily chosen.¹

The elaboration of this system rested on a single crucial observation: that the materials of music consist of sounds and silence, and that the only parameter of sound that is shared by silence is *duration*. Therefore, Cage reasoned, structure must be based on duration; and if this is the case, the sound-materials need not be restricted to pitches, but can include noise. Indeed, noise is to be preferred, to some extent, because the ear will not be confused by old habits; the music’s logic will not be distorted by pitch-derived patterns imposed by the listener.²

The compositions that resulted were primarily for percussion or prepared piano, although there were a few remarkable works (notably the *String Quartet*) for conventional instruments. Form, being “of the heart,” remained essentially intuitive, but the other three components in Cage’s system were explored quite systematically throughout the 1940s.

Structure most often conformed to what Cage called the “square-root” formula: the whole was divided into equal units and these grouped into unequal sections; then each unit was divided into sub-units grouped in the same way. Thus, for example, the *Imaginary Landscape No. 3* contains twelve units of twelve measures each, grouped into sections of three, two, four and three units; in turn, the twelve measures in each unit are grouped into sub-units of three, two, four and three measures.³

Materials Cage usually chose by taste, though they were often numerically related to the structures or the methods used: the sixteen instruments used in the *First Construction in Metal* reflect the sixteen-unit structure, while the eight-by-eight charts of materials for the *Music of Changes* correspond to the sixty-four hexagrams of the *I Ching*. In general, as the decade passed Cage chose his materials more and more precisely and systematically; rather than simply selecting instruments (as in the *First Construction*, 1939), he eventually used

gamuts of specific sounds (as in the *String Quartet*, 1950, and the *Sixteen Dances*, 1951).

Method, too, became increasingly systematic. Originally the note-to-note procedure was determined solely by Cage’s own taste, but by the early 1940s Cage had begun regulating it by means of numerical schemes: a number series, for instance, controlled the density of events, measure by measure, in some of the early percussion pieces.⁴ But such systems still left considerable liberty; by the end of the decade Cage had restricted himself far more severely, determining the succession of events by making moves on large charts according to a system of rules.

By 1951 Cage had disciplined his compositional technique to such an extent that he had little control over the outcome once the initial choices were made and the system set in motion. The *Concerto for Prepared Piano and Orchestra*, finished that year, was a kind of allegorical summary of the preceding decade: the orchestra, strictly regulated throughout, manifests an ideal discipline while the piano improvises freely in the first movement, is instructed by the orchestra in the second, and joins in the discipline in the third.⁵ It was a small step in practice, though a large one philosophically, to substitute for the discipline of systematic moves on charts the discipline of chance operations.

But Cage actually entered this next and most controversial period rather cautiously. In the *Music of Changes*, composed shortly after the *Concerto for Prepared Piano and Orchestra*, the actual sounds (the “materials”) were chosen by a combination of system and taste; the proportions (the “structure”) followed the square-root formula. Only the tempo (affecting the “form”) and the note-by-note choices (the “method”) were determined by chance. The *Imaginary Landscape No. 4* (1951), for twelve radios, was in a sense the complement of the *Music of Changes*; in it the materials (radio broadcasts) were indeterminate, while certain other compositional decisions were made more conventionally.

These early hybrids were followed by works in which chance operations played a more pervasive role. A variety of techniques were used to produce noteheads—templates (in the *Musics for Carillon*), imperfections in the music paper (in the *Musics for Piano*), and star charts (in *Atlas Eclipticalis*)—but they produced similar scores. In these, conventional staff notation was used to write precise pitches in a specific order, but the pitches were arrived at by chance; moreover, since rhythm was given only proportionally and since in most cases Cage allowed the lines and pages of music to be excerpted and overlapped freely, the sequence and duration of pitches varied from performance

to performance. Cage was, in effect, providing "materials" (and "method," to some extent), but leaving "form" and "structure" to be determined by the performer. But such works were only partially unpredictable; although Cage could not anticipate the content of a score before making it, once it was composed he could anticipate (to some extent) the performance that would follow. *Music for Piano 18*, for example, would necessarily entail playing on the piano, in order, some number of the fifty-three pitches the score contains.

It was not until 1957 that Cage began devising pieces in which all aspects of the performance would be left undetermined. In the piano part for the *Concert for Piano and Orchestra*, an extraordinary compendium of compositional and notational devices, several pages contain only lines and points with sets of instructions. These no longer specify sound-material for the performer; they only indicate a procedure by which the material can be found. All decisions about sounds and their succession are delegated by the composer to the performer; the score serves only to ensure that these decisions will be made in a disciplined way which will yield unpredictable results. From 1958 to 1968 a large group of scores—including *Fontana Mix*, *Cartridge Music*, and the extraordinary series of *Variations*—consisted only of opaque and transparent sheets of lines, points, and curves, from which performable scores could be constructed to suit any occasion.

The extreme aesthetic continuity defined by these works was interrupted dramatically in 1969 by *HPSCHD* and the first *Cheap Imitation*, and Cage's music entered its fourth phase. The new pieces shared two important characteristics: they required a return to conventional notation (at least in part), and they entailed the use of earlier pieces by other composers. Though Cage had often assembled diverse materials in realizing other indeterminate scores, *HPSCHD* was his first fully-composed collage: it presented the performer with an enormous collection of materials, some quoted and some newly-composed, to be assembled in virtually any way imaginable. Nearly all of these were very precisely specified; thus, although *HPSCHD* offered much freedom to the performers, it retained, from performance to performance, a consistent and distinctive character—a festive air of exhilaration attributable in part to the timbral brilliance, rhythmic energy, and cheery C major of the source material (the Mozart *Dice Game* Minuet). *Cheap Imitation*, though less spectacular, was in a way an even more radical departure from Cage's earlier works; fully composed, it left no room at all for interpretation, and was close enough to its model (Satie's *Socrate*) to manifest an oddly conventional and evocative melodic and rhythmic logic.

The use of pre-existing material, collage, and traditional notation

has continued to characterize much of Cage's work since 1969. Even the large, fully-original pieces, like the *Etudes Australes* and the *Free-man Etudes*, have entailed fairly conventional and restrictive notation. But at the same time, certain earlier compositional techniques have been continued; thus the score for *Renga* is graphic, offering extreme liberties in interpretation, while that for *Child of Tree* essentially contains instructions for preparing a performance score. In many ways, in fact, Cage's most recent "period" is not so much a new departure as it is a summary. Probably the most clearly recapitulative work is the *Song Books*, and a close scrutiny of these helps to clarify the relationship of the recent pieces to those that came before.

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The *Song Books* were written in considerable haste between August and October 1970. Having decided to continue the series implied by the *Solos for Voice 1 and 2*, Cage's first question of the *I Ching* was how many additional solos to write. It assigned him "this astonishing number" (ninety),⁶ and it was immediately clear that the crucial problem was to discover a way to maximize diversity without having to devise an entirely new scheme for each song.

Cage's solution was to set up a simple three-step procedure by which he could outline the entire work. For each solo he used the *I Ching* to decide genre (song, theater, song using electronics, or theater using electronics), content (the piece was either relevant or irrelevant to the sentence "we connect Satie with Thoreau"), and compositional technique (either introducing a technique, repeating one already used, or varying one already used).⁷ (Cage had used part of this procedure years earlier; in writing the piano part of the *Concert for Piano and Orchestra*, he had also chosen whether each page would be new, a repeat, or a variation.) The outcomes of the three decisions made for the *Song Books* can be combined in a total of twenty-four ways (4x2x3); thus substantial diversity would be built into the whole piece from the outset. But, at the same time, Cage's plan to use some pieces as the basis for others (varying or repeating the compositional technique) would give the work consistency, as well as helping him to write quickly and efficiently.

Cage further decided to compose at least some of the new solos by using procedures he had already devised. He made a list of the ways of writing songs that he knew: composition by taste (as in *The Wonderful Widow of Eighteen Springs*), by means of transparencies (as in *Aria*, made by using the score for *Fontana Mix*), by the use of star charts and the *I Ching* (as in *Solo for Voice 1*), and by other means. He probably

reviewed earlier uses of theater and electronics as well. Theater (the composition of actions, as opposed to sounds) had not only been central to such mixed-media works as *Water Music* and *Speech*, but also had been strongly implied by many of the fully-indeterminate scores from the 1960s, such as *o'oo"*. Electronics had encompassed tape recordings (in the *Williams* and *Fontana Mixes*), processing or distortion of voices or instruments (in *Atlas Eclipticalis*), and sound synthesis (in *HPSCHD*); another technique often used in the past had been to make a score which described changes in equipment but left the equipment itself unspecified. With these lists of known procedures at hand, Cage would be able to respond, when required to introduce a compositional technique into the *Song Books*, either by using one of these familiar procedures or by inventing something new.

The three initial decisions made for each solo in the *Song Books* were recorded on an ordinary stenographic pad,⁸ with a new leaf assigned to each piece (when Cage ran out of paper, he turned the book over and began using the versos). Table I summarizes these decisions for the first twenty pieces (numbered 3–22, since they continue from *Solos for Voice 1* and *2*); the parenthesized symbols are the labels Cage himself assigned to the compositional procedures used. With the preliminary organization complete, Cage simply sketched each piece in turn. The thumbnail descriptions of the first twenty pieces following Table I will give some idea of how each piece was actually made.

Solo for Voice 3: The performer obtains a curvy line by tracing a complicated route between two points on a map of Concord; this is inscribed as a "melody" above a text from Thoreau's *Journal* printed using various typefaces, and the text and melody are sung. This compositional idea is new for Cage. The points on the map to be joined were determined by *I Ching* operations on the *Journal*; so was the text, which was also edited and typeset using the *I Ching*.

Solo for Voice 4: The same procedure was used, with different outcomes yielding different points, texts, and typefaces.

Solo for Voice 5: A variation on the above; a portrait of Thoreau (over which the performer may "wander freely") is used rather than a map, the text is fragmented, and time constraints are added. Cage used the *I Ching* to decide whether to continue with Thoreau materials or switch to Satie; when it selected Thoreau, he sketched the variation, then determined text, timing, and typeface using the *I Ching*.

TABLE I

Solo	Genre	Content	Compositional Procedure
3	Song, electronics	Relevant	Introduce (A)
4	S,E	R	Repeat (A)
5	S,E	R	Vary (A var = B)
6	Theater	Irrelevant	Introduce (1)
7	T	R	Vary (1 var = 2)
8	Theater, electronics	I	Introduce (a)
9	T	R	Repeat (2)
10	T	I	Repeat (1)
11	S,E	I	Introduce (C)
12	Song	I	Introduce (I)
13	S	I	Repeat (I)
14	S	I	Vary (I var = II)
15	T,E	R	Introduce (b)
16	S,E	I	Repeat (C)
17	S,E	R	Vary (C var = D)
18	S,E	R	Introduce (E)
19	T	I	Repeat (1)
20	S,E	R	Repeat (A)
21	S,E	R	Introduce (F)
22	T,E	R	Introduce (c)

Solo for Voice 6: A series of numbers is given, in various typefaces, some superpositioned, and each with a plus or minus sign; the performer makes (by any means desired) a numbered list of theatrical activities or objects, decides how to interpret the signs and typefaces, and performs the series accordingly. The compositional idea is new for Cage; in realizing it, he used the *I Ching* to decide how many numbers there would be, what they were, what the sign was for each, which would be superpositioned, how many numbers would be inscribed before a change of typeface, and what the typeface would be.

Solo for Voice 7: A variation on solo 6; a time-limit is imposed, and Cage himself has interpreted the numbers, so that the score contains a series of performable words and phrases relevant to Satie and Thoreau, with signs, typefaces, and superpositioning as before. In the realization Cage first made separate lists of phrases for Satie and Thoreau (using the *I Ching* to decide how many

items there would be in each list and selecting the Satie materials by taste, the Thoreau by *I Ching* operations on the *Journal*), and then composed a score using the procedure for solo 6, substituting the appropriate bit of prose for each number as he went along.

Solo for Voice 8: Cage introduced an exact copy of an earlier work, *o'oo* ("In a situation provided with maximum amplification, . . . perform a disciplined action . . .").

Solo for Voice 9: The procedure used to make solo 7 was repeated, but with different outcomes resulting in a different series.

Solo for Voice 10: The procedure for solo 6 was repeated.

Solo for Voice 11: Dots, to be interpreted as noteheads for a vocalise, are scattered freely through the upper half of a space indicating range (thus requiring that only the high part of the voice be used), and pairs of numbers describe changes in the electronics (by specifying which dial on the available equipment is to be changed and to what position). The composing procedure is newly introduced to the *Song Books* but closely related to that used for several other works, such as *Atlas Eclipticalis*: the *I Ching* is used to choose a page or pages from a book of star charts and to select a star color; then the corresponding dots (of different sizes, indicating magnitude) are traced onto some sort of staff-system, the number of pages or systems having been decided by the *I Ching*. (The technique was so familiar to Cage that the original sketch could be extremely brief: "star map. free vocalise. high, i.e. coloratura.") The *I Ching* was used again later to determine the numbers affecting electronics (this procedure had also been used in *Atlas Eclipticalis*).

Solo for Voice 12: As in solo 8, Cage introduced a copy of an earlier work, in this case *Solo for Voice 1*, written originally in 1958 for Arlene Carmen.

Solo for Voice 13: The procedure used to make solo 1 (copied as solo 12) is reused to make a new piece, this one suited to Cathy Berberian's vocal range. The *I Ching* determined the number of pages and number of events on each page; then the appropriate number of dots of various sizes were transcribed from star charts onto ordinary music staves. Additional notation (phrasing and

dynamics) and texts (in this case, from books on mushrooms) were associated with each dot, using the *I Ching*.

Solo for Voice 14: The procedure for the preceding solo was varied by using the staff Cage designed for *Atlas Eclipticalis*, in which the lines are not equidistant but reflect the unequal distribution of chromatic notes. Solo 14 was written for Simone Rist's vocal range, and the texts were selected (using the *I Ching* as before) from newspapers.

Solo for Voice 15: A typewriter amplified by means of contact microphones is to be used to type a statement by Satie thirty-eight times. The idea is a new one; the *I Ching* was used to decide whether the sentence would be drawn from Satie or Thoreau and how many times it would be typed. The sentence ("L'artiste n'a pas le droit de disposer inutilement du temps de son auditeur") appears to have been chosen by taste.

Solo for Voice 16: The procedure used to make solo 11 is repeated.

Solo for Voice 17: Cage was required to vary a procedure used to make a "song using electronics." By this time three procedures were available ("A," from solos 3 and 4; "B," from solo 5; and "C," from solos 11 and 16), so the first decision to be made was which of these would be varied in solo 17. "C" was selected, and the *I Ching* was used to decide whether the variation would be pertinent to Satie or Thoreau. Thoreau was chosen; the variation consisted of reducing the space representing vocal range to a single line (above, on, or below the line, thus indicating simply high, middle, or low voice), adding a text (composed by the *I Ching* from Thoreau's remarks on the "telegraph harp"), and eliminating the numbers for the electronics, choosing instead to require that they transform the voice "so that it resembles singing wires."

Solo for Voice 18: A copy of the third movement of the first *Cheap Imitation* (of Satie's *Socrate*), with the text to the original underlaid after scrambling the syllables within each phrase, and with symbols added irregularly to indicate some unspecified change in the electronics. The procedure (using the *I Ching* to transform the pitches of an existing work) is new to the *Song Books* but a familiar one to Cage. Having decided to introduce it, Cage then apparently used the *I Ching* to decide whether to write a new

imitation, repeat the existing one, or vary the existing one, and then (required to vary it) to decide which movement was to be used. The text was rearranged using the *I Ching*, and a symbol requiring a change in the electronics was added wherever the transformed pitch content coincidentally matched the original.

Solo for Voice 19: The procedure used to make solos 6 and 10 was repeated.

Solo for Voice 20: Cage was required to repeat a procedure used to make a "relevant song using electronics"; as in solo 17, there were by now three available ("A," "B," and "D"). "A" was selected and the procedure repeated.

Solo for Voice 21: A line and its mirror image are given, one above the other, to be interpreted as a forty-second melody, with the singer allowed to change from one line to the other at "structural points" indicated by vertical lines; one electronic change is to be made smoothly throughout, and a sentence by Satie is to be used freely as a text. The compositional procedure is new and was designed so that it could be relevant to either Thoreau or Satie (in the sketchbook Cage jotted "reflections in water T, rhythmic structures S"). Satie was chosen, using the *I Ching*; five sentences by him were selected by taste and the *I Ching* used to choose one and to determine the structural points and the total duration. The melodic line was drawn freehand, spontaneously.

Solo for Voice 22: The performer breathes regularly or irregularly through nose or mouth according to a series of points distributed among four lines ("nose reg/irreg/mouth reg/irreg"); some points are connected, and pairs of numbers describe electronic adjustments as in solo 11. The compositional procedure is new; Cage used the *I Ching* to determine the number of points, their placement, the connections, and the numbers for the electronics.

And so the *Song Books* continue, the compositional procedures continually building upon those already used. Even from the sketchy analysis just given, it is clear how intricate and rich Cage's technique is; the solos in the *Song Books*, while extraordinarily diverse, are intimately interlinked both to each other and to earlier pieces.

It is also clear that, despite the sophisticated use of chance techniques, Cage's own taste played a significant part in shaping the *Song Books*. Even the smallest of his decisions concerning procedure often

shaped the result distinctively. For example, in making the list of words and phrases relevant to Satie and Thoreau for use in *Solo for Voice 7*, Cage chose not to assume equality between the two persons. Instead, he used the *I Ching* first to decide how many items in the list would be pertinent to Satie, and how many to Thoreau; as it turned out, Satie was assigned only one item, while Thoreau was assigned forty. As a result, solo 7 has a distinctively Thoreauvian flavor, sprinkled with phrases like "sound of the wind," "obvious inactivity," and "walking." But when the procedure was repeated to make solo 9, the proportions turned out differently; thus the character of this solo is quite different, with a good mix of items like "flyswatter," "terrible anger," and "Take your temperature. Give yourself another (each hour)."

The point is not, of course, that Cage wanted these two solos to have the character they do (he didn't), but rather that he took care to devise a procedure that would allow character to emerge. A curious thing has happened: a chain of choices has been made randomly but in such a way that the result is very likely to appear biased. Such techniques are quite typical of Cage's recent work, and they explain in part why the pieces composed since 1969, although built by using chance operations, have such distinctive profiles.

Cage's taste also affected the *Song Books* more directly. Many adjustments and additions made after the solos were first sketched have the effect of elaborating the web of connections that binds the solos together. To solos 3 and 4, for instance, Cage appended the suggestion that tape recordings (of hawks and of bird sounds, respectively) be used as accompaniment; the content proposed for the tapes was suggested by the content of the Thoreau texts chosen by chance for these solos. No tape is proposed for solo 20, composed using the same procedure; but for solo 17, based on a wholly different technique, Cage suggested a tape recording of telegraph-wire sounds. Thus a new link is established which connects the "map" pieces (solos 3, 4, etc.) to the "star chart" pieces (solos 17, 11, etc.). Similarly, the method used to notate the electronics in solo 22 (a theater piece, relevant) is exactly the same as that used in solos 11 and 16 (songs, irrelevant). In this case the new connection links different genres as well as different compositional procedures; later on in the *Song Books*, in solos 40 and 50, the same notation is extended to still more varieties of solos.

More directly yet, Cage's taste shaped most of the most obvious characteristics of the *Song Books*: the use of procedures already familiar from previous pieces, and the selection of these; the type of new procedures devised, and the type of variations applied to older ones; and the overall plan tying all the solos together. In many ways, Cage's

use of taste in matters of detail was a necessary consequence of these more basic decisions, since they led to ways of writing typical of earlier periods. But Cage not only accepted the return of such methods; he appears actually to have sought them out. There are two solos in particular (35 and 49) in which fully-notated melodies were composed almost entirely by taste; the procedures for both were quite deliberately introduced into the *Song Books* by Cage himself. If such composition represents a regression, it appears to have been a welcome one.

In any case, such composition is fairly typical of the recent works. The *Cheap Imitations*, for example, are all fully composed and notated melodies; and although chance operations determined the pitches, other aspects of the score were often decided by taste. Because of this, for example, Cage was able to shape movement 2 of the first *Cheap Imitation* (in which taste determined register) to produce an elegant and gentle climax about seven-eighths of the way through: the size and frequency of large melodic leaps increase and the melody moves gradually upward to its highest point, two octaves above the beginning. A similar tasteful control of pedaling in the first movement and of conjunctions in the last allowed analogous subtleties to emerge. The whole work, in fact, is artfully as well as arbitrarily composed.

In other recent pieces, Cage has applied chance techniques more rigorously but devised them to suit particularly well the source materials used. The *Hymns and Variations* are built by a process of "subtraction" (in effect, a partial erasure) of two hymns by William Billings. The harmonic purity of the originals is enriched by the subtleties of the compositional procedure: certain notes are selected to be extended as well as deleted, so that new and arbitrary harmonies are created, often unexpected but generally rich and consonant. The same extensions affect the phrase structure of the hymns, so that no two variations have quite the same balance; and the use of only soft singing by solo voices, *non vibrato*, further enhances the sense of serene activity.

The resulting music is extraordinarily coherent and comfortable for the ears, and the relationship between it and the more anarchic pieces from earlier periods can easily be interpreted as akin to the relationship between, say, Stravinsky's neo-classic *Pulcinella* and his earlier *Petrouchka*. It is this sort of analogy that supports the interpretation of Cage's recent work as regressive or neo-conservative. But to impose such a judgment, the character of other recent pieces must be ignored: the extreme imprecision of *Renga*, the militance of the *Lecture on the Weather*, or the tumultuous anarchy of *Roaratorio*. Moreover, a post-1970 regression is obviously inconsistent with the line traced by

Cage's previous music, which has grown ever more radical; nor is it consistent with Cage's personal and political views, which (except perhaps on diet) appear little changed. Clearly an alternative explanation must be found.

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When Cage embraced chance operations in the early 1950s, the shock was so profound and the implications so far-reaching that chance soon came to be regarded as the cornerstone of his aesthetic. But this had clearly not been the case previously; and, in fact, it never became the case. Chance procedures are only one tool among many that Cage has used to pursue quite consistently a single goal throughout his career: the disciplined acceptance, in musical contexts, of that which had been previously rejected out-of-hand. "I've always been on the side of the things one shouldn't do," he once remarked, "searching for ways of bringing the refused elements back into play."⁹

But the "refused elements" have changed, of course; once something had been accepted, it was accepted for good (though it may have been forgotten from time to time), and Cage's efforts turned toward accepting something else. Once the sequence of changes is traced, the evolution of Cage's music becomes extraordinarily clear and consistent.

At the very outset, Cage chose not to use tonality, which by definition excludes certain pitches while establishing others as central. Cage proposed instead to accept all twelve chromatic tones and to treat them equally; in this sense he allied himself with Schoenberg. But he quickly realized that Schoenberg's method also discriminated: it lumped all F#'s, for example, into a single abstraction, despite the fact that an F# near the top of the piano sounds radically different from an F# near the bottom. So Cage evolved a more elaborate system of chromatic composition treating every pitch independently; "I thought there were eighty-eight tones," he recalled later (and added, "if it were feet, would it be a two-tone row?").¹⁰

But problems remained. Cage's fully chromatic system, like the twelve-tone one, required that certain combinations of notes be avoided because they would too strongly suggest tonality. Worse yet, a system based on pitch had no place for noises, or for silence. "Noises," Cage found, "had been discriminated against; and being American, having been trained to be sentimental, I fought for noises. I liked being on the side of the underdog."¹¹ So Cage began writing for percussion, inventing the prepared piano to serve as a substitute when percussion instruments proved impractical.

In both the chromatic pieces and the percussion works, the problem was not merely to introduce the "refused elements" into an existing compositional framework but to devise an altogether new one. Noises, in the context of a work built on the organization of pitch, would be novelties, in no sense equal participants. It was necessary to invent a compositional logic which would apply equally well to sounds of all types, and to silence as well. Moreover, this system would have to be sufficiently abstract to admit even sounds its inventor (the composer) had not yet imagined. The acceptance of new materials had to be *disciplined*; otherwise it was likely that certain types of sound would be discriminated against inadvertently, by neglect or omission.

Cage therefore conceived the elaborate aesthetic that governed the music of the 1940s. The "structure" of that music was designed, above all, to be open to any kind of material—tones, noises, words, silences: "Structure . . . is a discipline which, accepted, in return accepts whatever . . ." ¹² The "method" and the "materials," newly-devised for each piece, simply provided a means for filling a particular structure.

But by the late 1940s it had become clear that there were still elements being refused. Though Cage's music was open to all types of sound, it was not open to all continuities; the ordering of sounds remained a matter of taste, and Cage's preferences would automatically tend to exclude certain "melodies." Then, too, imagination is limited, so there no doubt would be a vast collection of sound-sequences that would never be heard because they would never be conceived. A further discipline was required, one which would be as open to all continuities as structure was to all materials.

The variety of "methods" devised through the 1940s was largely a response to this need. Each placed more severe constraints on Cage's taste than the last, so that little by little his music began to accept sequences of sounds that Cage might previously have rejected. By the early 1950s Cage was operating according to rules so complex that it was no longer clear what, if anything, they excluded. It was only practical to turn to chance operations.

The use of chance, then, was not a revolution in Cage's music, but simply one more way of extending his determination to accept refused elements. It enabled him to open his music not merely to all sounds, but to all continuities. As his familiarity with chance operations increased, Cage little by little discovered procedures which widened the universe of possibilities still further: the content of the score could remain partly unspecified, so that each performance would be different; parts could be overlapped arbitrarily, so that new continuities would always be created; the performing forces could be unspecified,

so that the materials could be freshly conceived for each situation. Eventually, by the mid-1960s, Cage had extended such techniques to their limit; he was producing works which were not scores, but directions for making scores. These pieces left all aspects of performance undetermined; literally anything that coincidence might create could happen.

In this musical universe only one concept was refused: intention. The remarkable achievement of the late works, from *HPSCHD* forward, is that they continue still further Cage's disciplined acceptance of "refused elements" by opening themselves to the very sort of intention that it had earlier been necessary to reject. Cage had predicted something of the sort years previously, in discussing Morton Feldman's music:

There is no end to the number of somethings and all of them (without exception) are acceptable. . . . That is to say there is not one of the somethings that is not acceptable. When this is meant, one is in accord with life, and paradoxically free to pick and choose again as at any moment Feldman does, will, or may. New picking and choosing is just like the old picking and choosing except that one takes as just another one of the somethings any consequence of having picked and chosen.¹³

That is, choice as well as chance is free to enter into the act of composing, but that which is arrived at by choice is in no sense preferable to that arrived at by chance. Taste and judgment are applied within a discipline in which they are simply one way among many of making decisions; the discipline is violated only when they are imposed without being required.

The procedures entailed by such a discipline must be sophisticated and carefully balanced. They must call for the use of taste in an unpredictable way, and they must specify quite precisely taste's domain when it is used. Although intention is acceptable, it must never be preferred, and the procedures used must generate a variety and quantity of events sufficient to make intentional decisions simply some among many. It is precisely this that the *Song Books* accomplish: through a mix of known techniques (many involving taste) with new ones and with variations, the whole interlinked by a naturally emerging web of relationships, they allow taste to enter in as just another device, nothing more. The lyric modality of solo 49 (a fully-intentional re-composition of *The Wonderful Widow of Eighteen Springs*) in no way is preferable to the arbitrary abstraction of solo 11; these solos are simply two among the ninety which comprise the extraordinarily diverse, yet altogether coherent, universe of the *Song Books*.

Yet there is a sense in which intention must be extended still further. By a kind of self-referential logic, procedures designed to accept changing procedures must themselves be subject to change; and by the same logic, if that which is accepted includes intention, it must be possible for these changes to be intentional. If taste is admissible, it must be admissible at all levels; yet, paradoxically, procedures which strictly exclude taste must also be admissible. In effect, the compositional universe must be open to all compositional techniques, from the most arbitrary to the most artful, with no particular technique preferred. And indeed, Cage's most recent period manifests exactly this openness, with works ranging from the abstraction of *Renga* to the precision of the *Cheap Imitations*. The world of music, with all its conventions, is returned to itself, together with all that was gathered on the way; only the *values* formerly attached to that world have been removed.

It is with *values* that the line can be drawn. Values need not be reaccepted into Cage's discipline because they are not part of music; values contain neither sound nor silence. Values concern interactions—in this case, between people and sounds—and such interactions are essentially social in character. As always, Cage's music eventually leads out of the domain of art and into that of society. But the new works are not models, as in earlier years. The effect of the recent pieces is instead to clarify music's limitations: though it can, as Cage has always insisted, change people's minds, the discipline of acceptance available in composition cannot at present be extended to daily life. Judgments are acceptable in the recent music because they have been previously rejected, and thereby disassociated from *value*; but it remains for society even to take the first step. Social judgments will not be acceptable until they too have been rejected; then, valueless and anarchically changeable, they can be reintroduced without danger.

If there is a conservatism in Cage's recent work, it lies in this: that music can now accept as part of itself that which it not long ago expunged. But the new music, though it resembles the old, has left the burden of value behind; in the end, it is not so much conservative as transcendental. And its conservatism, if it be that, is no model for society. The world has yet to accept a discipline of anarchy, let alone one which would readmit order; for the present, the social objective remains revolutionary. We may indeed have reached the point at which the intentions of those who would compose our music need not concern us; but the intentions of those who would compose our lives must still be opposed.

1. John Cage, "Composition as Process," *Silence* (Middletown, Conn.: Wesleyan University Press, 1961), p. 18.

2. John Cage, "Lecture on Nothing," *Silence*, p. 116.

3. Probably the clearest explanation of such structures appears in Cage's "Lecture on Nothing," where the lecture itself serves as an illustration of the pattern it is describing.

4. See Stuart Smith, "The Early Percussion Music of John Cage," in *Percussionist* XVI:1 (Fall, 1978), pp. 16–27, for an excellent analysis of one such work.

5. Information from an interview with John Cage, February 22, 1979.

6. From the interview, February 22, 1979. Most of the following discussion is based on this interview, and on a detailed examination of the sketch books, drafts, and scores of the *Song Books*.

7. A brief explanation of just how the *I Ching* is used may help somewhat to demystify Cage's music. The *I Ching* is essentially a collection of commentaries indexed by sixty-four *hexagrams*, each made up of six lines of two sorts—broken and unbroken. In consulting the *I Ching*, the questioner first builds up one of these hexagrams, line by line, traditionally by throwing yarrow stalks or coins, and the procedure is such that each line (broken or unbroken) can also be characterized as either *changing* or *at rest*. Changing lines, transformed into their opposites, produce a second hexagram, and both the original and the transformed hexagrams are used to obtain commentary from the collection.

In practice, Cage is usually unconcerned with the commentary itself, and considers the changing lines only occasionally (usually when making major decisions). The *I Ching* is, for him, essentially a device which produces random numbers from 1 to 64. In his earlier work Cage actually used coins to generate the hexagrams (and hence the numbers); but when making *HPSCHD* he was able to program a computer to construct them instead, and his hexagrams are now, so to speak, prefabricated in large stacks of computer printout.

To make a decision it is first necessary to determine the number of options. The numbers from 1 to 64 are then partitioned accordingly, into equal segments, and a hexagram obtained; the number of the hexagram determines the outcome. For example, there are four genres in the *Song Books*, so the partitioning could be 1–16 (song), 17–32 (theater), 33–48 (song using electronics), and 49–64 (theater using electronics). Thus if the next hexagram on the printout were number 41, the next piece would be a song using electronics. When 64 cannot be divided equally, the closest approximation is used; to decide compositional procedure in the *Song Books* (three options), the partitioning was 1–21 (repeat), 22–43 (vary), 44–64 (introduce). If the number of options is greater than 64, then they must be subdivided into 64 equal groups; one of these is chosen first and then a second choice is made to select a single option from it.

Until very recently, Cage has nearly always partitioned groups equally (the *Freeman Etudes* are the first pieces to be based deliberately on asymmetric divisions). But asymmetry has often resulted indirectly from chains of decisions (for an example, see the discussion of solo 7 above, p. 159). In fact, complex procedures involving many contingent choices almost always skew the results in some unforeseen way; in analyzing Cage's music, then, it is vitally important to begin by analyzing the compositional procedures and their consequences.

8. Cage has often used stenographic pads to sketch compositions and writings; see, for example, *A Year from Monday* (Middletown, Conn.: Wesleyan University Press, 1969), pp. 36–40.

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9. Michael Kirby and Richard Schechner, "An Interview with John Cage," *Tulane Drama Review* X:2 (Winter 1965), pp. 60-61.
10. John Cage, "Lecture on Nothing," *Silence*, p. 124.
11. *Ibid.*, p. 117.
12. *Ibid.*, p. 111.
13. John Cage, "Lecture on Something," *Silence*, pp. 132-33.

John Cage's recent violin music

Paul Zukofsky

In summer 1975 I became aware of John Cage's having returned to a more traditional notation in the *Etudes Australes* (which he was just finishing). The implications of this return were of general importance, but my interest was more personal. I had by then recorded the *Six Melodies for Violin and Keyboard*, as well as the *Nocturne*. I knew both *59½"* and *26' 1. 1499" for a String Player*, but did not feel much affinity for those pieces because of the totally graphic notation which, in my experience, does not work perceptually and therefore fails to provide the sufficient specification which allows a performer maximum interpretive possibilities. While I had always hoped that Cage would return to a more traditional notation and write more violin music (I have always felt that both the *Melodies* and the *Nocturne* are extremely beautiful and very violinistic), I was very reluctant to bother him. After all, if he wanted to write violin music, he would do so. In discussing this with both Earle Brown and Pia Gilbert, Earle remarked that John had no more reason to assume interest on my part than I assumed on his and, if I was serious about it, I really ought to get in touch with him. Following this statement, I wrote John, and a few weeks thereafter he called me, and explained that he was already committed to writing an orchestral piece for the Bicentennial (*Renga with Apartment House*) and could not start anything until that was completed. Once done with *Renga*, however, he would be happy to write something for me.

Sometime early in 1976 we met and discussed the possibility of his doing a series of etudes for the violin. I also mentioned how much I loved *Cheap Imitation*,* and thought that an unaccompanied violin

**Cheap Imitation* (1969) for solo piano was written to replace *Socrate* by Erik Satie after the French copyright holder had refused permission to allow the work to be arranged for two pianos for use as an accompaniment to Merce Cunningham's *Second Hand*. It was later (1972) orchestrated for 24-95 parts, with or without a conductor.