

STRUCTURING FREEDOM: LESSONS FROM JOHN CAGE¹

by Katharine Cartwright, Ph.D.

John Cage (1912-1992) was interested in compositional “indeterminacy”: the idea of leaving certain aspects of performance up to the discretion of performers, open to opportunities and restrictions borne of the moment. Indeterminacy resonates with improvisation, and quite a few jazz improvisers, including myself, have been attracted to Cage’s pieces. Ironically, Cage didn’t equate indeterminacy and improvisation, nor did he claim a particular interest in or affinity for jazz, but this hasn’t deterred adventurous improvisers from delving into his work.² His pieces are flexible enough to accommodate a wide variety of styles and approaches. In fact, to say that his work permits different styles and approaches is misleading; it *invites* difference.

Cage’s oeuvre is immense, and there are many pieces that are highly determined in all respects; these are another subject. But he also wrote hundreds of open structures, using a panoply of highly individualistic approaches to performance flexibility, each form asking something slightly different of the performer; these are the ones I’m interested in here. Below are a number of applications gleaned from my experiences in performing and teaching Cage’s music. The examples are primarily from Cage’s *Song Books* (1970), a two-volume work consisting of nearly one hundred vocal pieces. I chose pieces that would allow as much performer-input and creative freedom as possible and to permit adaptation to assorted instrumental-vocal combinations, while representing a wide variety of styles and techniques. These can provide a great deal of intellectual fuel for students (and professionals) interested in composing their own open forms.

Among Cage’s most important contributions were his innovative approaches to musical notation (see Pritchett 1993). He developed a huge repertoire of new graphic forms and found many ways of adapting traditional symbols to suit his unique aesthetic purposes. Cage’s notational practices are likely to figure prominently in any study of his music. The following examples allow us to glimpse some of the numerous options he developed for representing sound.

The outline below includes references to the work of students in graduate seminars on improvisation at San José State University (Fall 1999 and Spring 2001), and to my arrangements of Cage songs for jazz quintet (“*La Faute de la Musique*”: *Songs of John Cage*—Harriton Carved Wax HCW 031).

OUTLINE: COMPOSITIONS, SKILLS, ADAPTATIONS/APPLICATIONS

The "Aria": Color, Contour, Clock-Time

Description

Among Cage’s best-known and most beloved works is his “Aria” for solo voice (1958). In this piece, Cage asks the performer to construct a set of correspondences between color and musical style. Each of eight colors represented on the score is to be performed using a separate “voice”: an identifiable timbre, a specific melodic idiom, and/or a particular individual style. While he provides a list of correspondences used by Cathy Berberian, the wonderful singer for whom the piece was written, Cage leaves it up to the performer to decide whether to work with these or to create her/his own eight color-based characters. This assignment is both fun and challenging. One or two characters is relatively easy, eight is much more difficult. Cage increases the degree of difficulty by, at times, asking the performer to make some very quick switches between colors. Adding to the timbral spectrum, he provides snippets of text with consonants, letters, and words in Armenian, Russian, Italian, French, and English. (Adaptations for other instruments are suggested below).

As with many of Cage’s open structures, the notation of the “Aria” serves as a rough suggestion, not an exact prescription or description. Time is represented horizontally, pitch vertically, as in

¹ This paper was presented as part of a lecture-demonstration for the International Association of Schools of Jazz (IASJ) during their annual conference at the Conservatoire de Paris, France, June 25, 2000.

² For an exploration of the social implications of Cage’s disavowal of affinities between his work and African-American jazz improvisation, see Lewis 2004[1996].

conventional notation. There are, however, no staves, bar lines, or tempo indications. Metronomic time is replaced by clock-time (seconds, not beats), with each page of the score to last approximately thirty seconds. Cage sketches the contour of the melodic line and indicates its approximate location within a thirty-second time segment. It is up to the performer to create a tune with specific rhythmic and melodic characteristics. Dynamics and articulation are also undetermined.

Adaptations/Applications

Like all of the compositions in the *Song Books*, the "Aria" was written for voice. Nonetheless, with minor adaptations, it can become a solo vehicle for a horn (saxophone, trumpet, etc.), guitar, piano, or another melodic instrument. A color palette can be created that is instrument-specific. My graduate students came up with all sorts of interesting possibilities. Some colors were delineated by means of articulation (e.g., flutter-, double-, and triple-tonguing, extreme legato and staccato playing), some by harmonic/melodic idiom (bluesy, atonal, quasi-baroque). The students worked with mutes, multiphonics, pedal techniques, simultaneous singing and playing, dynamics, and a host of other means of distinguishing their color-characters. A natural and welcome by-product of this work is that students have an opportunity to significantly expand their color palettes, their individual sound and style repertoires. My entry into Cage's work was, in fact, through this piece and for this reason.³

Cage intended for his songs to be performed in a number of different ways: as solo pieces, in simultaneous combination with one another, with improvised accompaniments of various sorts. Parts performed together need not necessarily relate directly to one another. In fact, Cage revealed in unexpected musical coincidences, developing his own brand of what might be called "radical polyphony" in which independent parts are juxtaposed and intermingled with one another in random ways. On Berberian's debut recording, she sang the "Aria" along with Cage's "Fontana Mix," an electronically generated (pre-recorded) tape piece (Berberian n.d.). Cameron Brown and I have performed it as a voice and bass duet (we do this on our Cage album). In this arrangement, he often plays "time, no changes," creating a continuous pan-diatonic or chromatic walking bass-line throughout the piece. At times the voice and bass parts meet by choice or chance, at others they behave independently. In the studio, we also experimented with our own "Red Rock Mix," a free quintet improvisation that we created separately to be layered with the "Aria."

Targeted Improvisational Skills

- 1) Expansion of timbral and stylistic palettes
- 2) Experience combining and juxtaposing disparate styles of playing
- 3) Melodic invention within suggested contours, phrase-lengths, and sound/silence coordinates
- 4) Developing awareness of real-time (v. metronome-time)

Song #43 ("...la faute de la musique"): Text-Based Improvisation

Description

Like the "Aria," Song #43 encourages the singer/instrumentalist to work with a variety of styles, but takes her/him one step closer to total freedom. Pitch and contour parameters are left entirely up to the improviser. The score consists exclusively of four pages of text. Phrase lengths are specified precisely. The first page represents a 17-second phrase. The second, third, and fourth pages indicate phrases that are 49, 52, and 53 seconds long, respectively.

The text is printed using a variety of fonts, font sizes, and styles of lettering (bold, script, italic, all capital letters, all lower case, etc.). In some instances, an entire word employs a single font and size. In others, different letters within the word are printed in distinct fonts, sizes, and/or styles. The performing musician is asked to create correspondences between font style and musical style.

The composer suggests that the performer treat large letters/words as either loud, lengthy, or both. Conversely, smaller fonts are to be treated as either softer, shorter in duration, or both. This notational technique may be considered something of a Cage trademark (see discussion of Song #12

³ Thanks to Sheila Schonbrun for introducing me to this piece years ago. The album "La Faute de la Musique" (Harriton Carved Wax 031) is dedicated to her and to the memory of her late husband LaNoue Davenport, both long-time friends and associates of Cage.

below, among numerous other examples). The connection between dynamics and duration is an interesting one, encouraging the performer to think across parameters in a rather unusual way.

Adaptations/Applications

The text for Song #43 is a single phrase, quoted from Eric Satie: "Et tout cela m'est advenu par la faute de la musique." (All of that happened to me because of music; music is to blame.) In recording the piece with the quintet, I asked the instrumentalists to deal with this lyric in two ways. First, they considered the meaning of the phrase in creating a mood or moods, much in the same way as a good instrumentalist would contemplate the meaning of any song lyric in interpreting a jazz standard.

As important, I asked the instrumentalists (including the drummer) to use the sound of the phrase as it would be spoken (its intonation and rhythmic patterns, etc.) to suggest melodic content, rhythmic patterns, and phrase structure in their improvisations. (As you may recall, John Coltrane used this process to brilliant effect to create his "Psalm" in Part IV of *A Love Supreme*--Coltrane 1964, see Porter 1998:231-249). I was careful to suggest that an instrumentalist's treatment need not be strictly syllabic; s/he may take the same kinds of liberties in this regard as would a singer. Cameron Brown's reading on the bass, for example, was highly melismatic, while Richard Oppenheim's, on the saxophone, was generally more syllabic. In combination with a flexible catalogue of font-to-style correspondences, this approach allows each instrumentalist to come up with his/her own very personal and specific interpretations of the text.

There are many ways to perform this song in an ensemble setting: heterophonically, as a solo feature with improvised accompaniment, as a series of solo features, among others. My arrangement for the quintet was to perform it as a canon at seventeen seconds, the length of the first page of score. I found that this approach created some interestingly rich textures, particularly upon repetition. This piece was an exception of the few pieces in the *Song Books* that allow for (require, in this case) repetition of the form. As I stated initially, these are not cyclic structures.

Targeted Improvisational Skills

- 1) (Unspoken) text as determinant of phrasing, pitch content, metric/rhythmic structure, and phrasing for both non-vocal and vocal instruments
- 2) Development of personal timbre/style palette, ability to make quick changes between styles
- 3) Creative use of articulation, duration, and dynamics

Song #17 ("the telegraph harp"): Limited Timbral Palette, One-Line Staff

Description

The text for Song #17 is drawn from entries in Henry David Thoreau's journals: randomly combined excerpts from Thoreau's comments about the "telegraph harp." While the "Aria" and Song #43 ("la faute de la musique") require a broad spectrum of styles, the "telegraph harp" piece demands the opposite: that the performer develop and work within a very specific timbral range. S/he is asked to create a sound that "resembles singing wires, not strident, but whirring (Aeolian harp, musical saw)."

In this composition, Cage is more specific about pitch and phrasing. He offers note-heads on a one-line staff, with beams used to indicate slurred notes and commas or periods as breath markers or phrase endings. The staff delineates high, low, and middle registers. Notes on its single central line are to be placed in the middle register of the voice; notes above and below the line are to be chosen from the upper and lower vocal registers, respectively. The improviser selects specific pitches.

As in Song #12 (discussed below), among other examples, Cage suggests a correlation between note-head size and amplitude; smaller notes may be sung more softly than larger ones. As in the "Aria," he represents time as horizontal space, proportionally.

Adaptations/Applications

To adapt the vocal line to a horn or string instrument (piano, violin, bass, guitar), one need only eliminate or internalize the text, i.e., make the instrument "speak" the words in some fashion. (See the description of instrumental adaptations of "la faute de la musique," above.) The pitch, rhythm, phrasing, timbral and other parameters are applicable as is. Drummers can assemble specific

batteries of instruments, creating middle, lower, and upper pitch-range associations.

As with most of the songs in Cage's *Song Books*, the score can be realized by a mixed vocal/instrumental group performing in numerous possible ways, including simple adaptations of the familiar jazz-ensemble textures. One might, for example, take the typical approach of playing the piece as a "head" once together, then going into a "blowing" section with a series of individual solo interpretations of the score with (freely-) improvised accompaniment. (Needless to say, this arrangement would not sound "typical," despite the familiar arrangement.) In the arrangement I made for my quintet, we were to perform the score only once, rendering it in about four minutes. We did it as a song with polyphonic accompaniment. I sang the line as notated, while the other members of the group read the score between the lines, in a manner of speaking, but in strict character with the piece. In other words, the group played in and around the written line, keeping telegraph harp sounds and ideas in mind, weaving a timbral path for the melody to traverse. Before performing, we discussed telegraph harp ideas and sounds in some detail. With students, I find it to be particularly effective to engage in this kind of pre-performance exploration. Talking about these sorts of things is a perfectly obvious and natural thing to do, but we sometimes forget to do it.

While Cage recommends electronic transformations of the voice to achieve the imagined "telegraph harp" sound, with students and with my quintet, I chose to take up the challenge of creating the sounds by acoustic means. We added a little reverb in post-production of the album, but that was about it. All participants came up with highly creative solutions. Pianists (James Weidman and some of my students) reached into the piano to create imaginative otherworldly sounds on its harp, using slide-guitar implements, bottles, bits of copper tubing, and brushes. Bill Goodwin used a variety of ringing sounds on cymbals, employing them in combinations with other percussion colors. Cameron Brown played harmonics on the bass, and used a variety of sliding bowed sounds. Richard Oppenheim exploited the altissimo register of his horn, creating delicate bursts of sound and little upper-register slides. Flutists in the seminar used soft whistle-tones and breath noises. I worked vocally with a fast "whirring" vibrato, a lot of sliding legato, and microtonal pitch inflections to simulate strings being stretched and slackened.

Targeted Improvisational Skills

- 1) Group creation of a single composition-specific sound world
- 2) Experience with extended techniques of articulation and tone production (slide piano, whistle-tones, harmonics, altissimo glissandi, etc.)
- 3) Melodic improvisation based on registral shifts in three domains (middle, high, and low)

Songs #72, 90, 67: Register Extremes, System as Time Segment

Description

As does the "telegraph harp" piece, Songs #72, 90, and 67 ask the performer to create melodic lines by making pitch selections within specified ranges; low, middle, and high in the case of the "telegraph harp," low and high exclusively in the others. Cage's inventive use of notation is again in evidence in these compositions and others of their ilk. Melodies are represented as note-heads contained in a tube-like two-line staff; staff-lines indicate upper and lower extremes of the performer's range. The top line functions as a kind of ceiling, the bottom as a floor. The songs emphasize these extremes, with Cage's melodies appearing as note-heads that cling to and cluster around top and bottom lines.

Each page of score is comprised of three systems. The performer is asked to establish a consistent time-frame for the system. One should note that this is easier said than done in performance. The mainstream jazz player develops a strong pulse- and measure-oriented sense of form, and I would guess that most teachers of jazz improvisation have spent many hours helping students internalize the typical time-units that constitute our common-practice repertoire: four bars, eight bars, twelve bars, thirty-two bars, and so on. Similarly, as a matter of pacing (therefore survival), many performers learn to "feel" larger blocks of time: the length of a set, a break, a three-set night. But clock-time in 15- to 30-second chunks is quite another matter, and may take some effort to develop. For musicians who wish to explore free-rhythm (rather than pulse-oriented) improvisation, this kind of time-sense can be a useful tool, providing—once internalized—useful alternate indicators of how long "long" is. Cage was particularly interested in finding ways to circumvent what he disparagingly called the "tyranny of the beat," and this was one of them (see Zwerin 1966).

These register-extremes ("coloratura" songs, as Cage called them) encourage the development of quick reflexes with respect to articulation and pitch area. In these pieces, Cage forms a fixed association between register and articulation. All pitches in the upper register are to be performed in an exaggerated staccato manner, while in the lower range he asks for slurred "grunts." The melodies make frequent quick leaps from one domain to the other.

Adaptations/Applications

The coloratura songs are improvisatory, yet relatively exacting. Song #43 ("la faute de la musique"), by contrast, is quite a bit freer. In "la faute..." Cage provides no pitch indications, no proportional time notation; just a bit of text and a few fonts. Songs #72, 90, and 67 provide much more information; the composer makes many pitch, time, and articulation "suggestions." The register-extremes are lighter fare, but nonetheless fun to perform and to hear. They can serve as good starting places for students who may be overwhelmed by compositions with fewer improvisational "obligations" (see Nettl 1974).

Because neither time nor pitch is notated precisely, when the "same" melody is performed simultaneously by several musicians, the result is an appealing heterophony, not a conventional unison, an effect I've enjoyed with students and other performers. The sound field might be compared to a field of, say, poppies; all the same type of flower, but each an individual, each moving slightly differently in the "same" breeze. Another approach I've tried is to combine several of the pieces, with each performer realizing a different score of the same type. Here, the effect might be likened to a field of wild flowers. The melodies share a single character (a melodic genre distinguished by similar registration and articulation patterns), but the parts are differently combined.

Targeted Improvisational Skills

- 1) Experience working within strict pitch-range limits (extremes of register only, with emphasis on the upper register)
- 2) Building clock-time awareness in relatively small segments
- 3) Development of quick-switch reflexes with regard to articulation and registration

Song #12: Movable Clef, Target-Pitch Phrase Structure, Dynamic/Articulation Options

Description

In Song #12 and others of its type within Cage's oeuvre, the composer provides the improviser with a series of single note-heads on five-line staves, the notes arranged horizontally so as to indicate time proportionally. Each page of score contains six systems. As with Song #43 ("la faute de la musique") and other works, Cage asks the performer to correlate size of a notated event with its duration or amplitude (or both). Note-heads are given in three sizes (small, medium, large). A large note suggests a loud phrase, a long phrase, a phrase containing notes of long duration, or some combination of these; the smallest note-head suggests the quietest phrase, a very short phrase, a phrase comprised of staccato notes, or some combination.

Unlike in Songs #72, 67, 90, and others of their type, where the performer chooses specific pitches from within given pitch areas, in this piece Cage's note-heads indicate pitches more precisely. The five-line staff appears relatively conventional, but is treated differently. To begin with, the performer is free to choose an appropriate clef; none is indicated. Secondly, some pitches are not centered on a given line or space (some large notes take up both a line and its adjoining space). In these cases, the performer is free to make microtonal alterations.

One of the most unusual aspects of the notation is the presence of semi-circular phrase markers above note-heads. They look much like conventional slurs or ties, but are used in a unique way. The semi-circles are drawn either slightly to the left of, directly above, or slightly to the right of a given note. Where the marking is directly above the note, the improviser is to create a phrase which employs the indicated pitch as a central note in an otherwise freely-improvised phrase. Where the marking is slightly to the left of a note-head, the performer may begin a phrase in some other pitch area (using one or more other pitches), but is asked to conclude with the given pitch. Similarly, where the marking falls to the right of a given pitch, the performer begins on that pitch, then moves away from it to complete the phrase. In this way, the given pitches behave as target-notes. This approach to melodic invention resonates with the guide-tone or what I call "background-line"

approaches in jazz pedagogy wherein the improviser locates structural pitches in a given progression and develops improvisations that move around and through them in various ways.

In quite a few of Cage's songs, the composer intersperses pitched sound with unpitched "noises." He does this in his "Aria," indicating the sounds as little blackened squares (boxes) on the score. In Song #12, he notates these as note-heads with stems, placed (without ledger-lines) far beneath his widely spaced systems. As with his target-note pitches, the noise sounds are accompanied by swatches of text, phrases, and sounds in English, French, German, and Sanskrit (for specifics on these, see Kostelanetz 1970:130-131).

Adding to the specificity of the notation and creating an interesting dynamic ebb-and-flow within the piece, Cage includes dynamic markings below the note-heads. Because of the way the notation is set up, dynamics apply to the entire phrase, not just the single pitch indicated. In some places, he uses standard signs for crescendo and diminuendo. In others, however, he places the two signs on top of one another, indicating that the performer should realize the phrase in an "espressivo" manner, changing dynamic direction one or more times within the phrase.

Adaptations/Applications

Students have come up with many inventive realizations of this piece. As with Song #43 and other Cage works, non-singers were able to use the text snippets as prosodic and rhythmic guides, and as frames for timbral and emotional coloration. Because Cage does not provide a precise time-length for the system or the page, student performances varied greatly in this respect. Some were quick and darting, others more languorous. The composer's call to intersperse tones created by conventional means with "non-musical" sounds was answered in myriad ways. As with the "Aria," the students stretched their imaginations and added to their articulation and sound-production tool-kits.

To encourage them to develop highly-personalized ways of realizing this and other Cage pieces, I asked that students first spend time alone wood-shedding the compositions. After a week (or more) of private preparation, they shared their ideas with their peers. When individual sounds and concepts were finally brought to the communal table, they created a virtual smorgasbord of musical tastes for us to mingle and arrange in new ways. This was a most valuable byproduct of the work.

My adaptation for jazz quintet presents the piece in a modified homophonic texture. Only the voice performs the melodic phrases as notated, while other members of the ensemble improvise complementary lines. Saxophone, bass, and piano realizations followed Cage's suggested dynamics, articulation, and durations, but the melodies are freely improvised with respect to pitch and rhythm. Changes in dynamics in the ensemble are signaled by the beginnings of vocal phrases. In other words, the ensemble performs the dynamics indicated for the previous phrase until the subsequent phrase is signaled by the entrance of a new structural pitch and bit of text. Cage was fond of incorporating space in his compositions, and this piece is no exception. In an ensemble context, this affords the players plenty of time to create complementary statements and parts between vocal events.

Unless s/he has perfect pitch, a singer may find the pitch demands of this piece to be somewhat daunting at first, particularly in group contexts where the vocal lines are surrounded by swirling atonal or polytonal melodies. One solution I found is to arrange for the voice to key off of a melodic drone. In jazz, it is often the bass (sometimes piano) that is asked to perform drone duties in music requiring this feature. Desiring to use another approach, I asked Bill Goodwin to improvise a continuous freely-rhythmic accompaniment on a small pentatonic "bell harp." The function of this drummed drone was not unlike that of a tanpura/tambura in Indian classical music: to provide a constant pitch reference. In Cage's piece, however, the vocal improvisations are not intended to stay within a particular tonality/raga of the drone, but to alternately move toward and away from it while retaining melodic/harmonic independence.

Targeted Improvisational Skills

- 1) For the singer, practice in maintaining a pitch reference in an atonal or polytonal context
- 2) Experience in creating phrases which move toward or away from given target/goal pitches
- 3) Dynamics and articulation as primary determinants of phrase character and structure
- 4) Improvisation of complementary melodic phrases of specified duration within an atonal/polytonal context

Conclusion

Cage's disavowal of jazz and improvisation notwithstanding, his work (and that of other 20th-century avant-gardists) has much to offer the jazz improviser: compositional-improvisational techniques, performance ideas, and repertoire (see Shatz 2000). For jazz educators who wish to address improvisation outside of the mainstream (non-cyclic forms, free-rhythm, atonality, free improvisation, and other approaches) in their curricula, the indeterminate music of John Cage, Earle Brown, and their "New York school" colleagues provides rewarding and enjoyable ways to begin.

--June 25, 2000, rev. 2004

REFERENCES CITED

- Belgrad, Daniel. *The Culture of Spontaneity: Improvisation and the Arts in Postwar America*. Chicago and London: University of Chicago Press, 1998.
- Berberian, Cathy, et al. *Berio/Cummings: Circles; Sylvano Bussotti: Frammento; John Cage: Aria with Fontana Mix*. Mainstream MS/5055, n.d. [LP recording, released 1970]
- Cage, John. *Song Books* (Volumes I and II). New York: Henmar Press, 1970.
- Cartwright, Katharine (Katchie) and Richard Oppenheim. *La Faute de la Musique: Songs of John Cage*. Harriton Carved Wax HCW031, rec. 2000. [CD]
- Coltrane, John. *A Love Supreme*. Impulse 77, rec. 12/9/64.
- Dean, Roger. *Creative Improvisation*. Philadelphia: Open University Press, 1989.
- Kostelanetz, Richard, editor. *John Cage*. New York: Praeger, 1970.
- Lewis, George E. "Improvised Music after 1950: Afrological and Eurological Perspectives." *The Other Side of Nowhere: Jazz, Improvisation, and Communities in Dialogue*. Ed. Daniel Fischlin and Ajay Heble. Middletown, CT: Wesleyan University Press, 2004: 131-162.
- Nettl, Bruno. "Thoughts on Improvisation: A Comparative Approach." *Musical Quarterly* 60/ 1: 1-19.
- Porter, Lewis. *John Coltrane: His Life and Music*. Ann Arbor: University of Michigan Press, 1998.
- Pritchett, James. *The Music of John Cage*. Cambridge: University of Cambridge Press, 1993.
- Shatz, Adam. "Turning Circles and Squares into Noise." *New York Times* 1/9/2000: 41,52.