

# BERIO'S "CIRCLES": EXPLORING THE INTEGRATION OF POESY AND MUSIC INTO A MEANINGFUL WHOLE

by

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This paper posits a close correlation between the compositional elements comprising Luciano Berio's "Circles" for voice, harp and percussion and the poetic devices used by E. E. Cummings in the poems that Berio set in the cited work. The specific quality of uniqueness of expression in both works is shown by elucidating the visual cues and gestures in the text of the poems with the visual and musical cues and gestures in Berio's score. It will be seen that Berio's composition plan of Circles' overall structure is that of multiple layers of interlocking cyclic devices. One example is the palindromic juxtaposition of the three poems in five movements in the order 1,2,3,2,1. Another is the layout of the each percussion stand as three concentric circles, with the player in the center. The singer is directed to move in a semicircle beginning with the recapitulation of the setting of poem two. These cyclic elements continue down to palindromic treatment of pitches. Visual cues in the poetry such as parentheses, isolated letters and "spurious" capitalizations led Berio to use echoes and simultaneities in the accompaniment and the vocal line. Cummings' seemingly arbitrary use of punctuation inspires multiple interpretation of each poem's scansion. Berio responded by employing aleatory passages in the music including giving the singer the freedom to conduct portions of the performance as it is going on. I propose that this almost fractal construction of the music can be extrapolated from the apparent subject matter of the poetry: cyclic natural events like sleeping/waking, life/death, storm/calm. It should also be noted that fractal structures like this are abundant in nature.

Whenever some event moves us emotionally, we often can be heard making a comment something like "I'm at a loss for words," or "I'm speechless." There is a hesitation in expressing our feelings at the moment because we either feel words can't do the event justice or we're afraid of trivializing the event by using a cliché. To poets and other artists, this is often more keenly felt because they've chosen to make a career of expressing or embodying feelings in their work. They've chosen their art as a way of giving them a broader lexicon for that expression in the hope of sharing it with the world at large. Often the desire of finding new and more poignant ways of sharing pushes the artist to create new forms for that expression.

Such is the case for the two artists and their works described in this paper: the poet E. E. Cummings and the composer Luciano Berio.

Cummings was a member of the of the avant-garde literary group in Paris named by Gertrude Stein the "lost generation". As was true for Stein, Hemmingway, Eliot and other members, the trauma of World War I all but forced Cummings to find new modes of expression. Where Eliot and Hemmingway turned to inclusion of languages other than English in order to support their poetic expressions, Cummings added radical changes in syllabication, punctuation, and capitalization. The result is what he sometimes referred to as "word constellations" – an interesting turn of phrase, since the impact is often more apparent when seeing the text on the page than hearing its recitation. As we shall see, Berio's "Circles" also relies on a strong visual element integrated into its performance which cannot be completely appreciated by audition alone.

During the period following World War II, a great deal of creative innovation swept through the art music community in the West. Besides the advent of electronic manipulations of sound and musique concrete, were bold expansions of the performer's technique on the mechano-acoustic instruments of the traditional symphony orchestra. John Cage experimented with adding objects to the mechanism of the grand piano to achieve new sonic effects. Boulez, Stockhausen, Ligeti and Berio along with their American counterparts like Babbitt, Crumb, Carter, and Strang pushed the envelope of conventional instrumentation – including the human voice – to ever greater heights of expression.

It's no surprise, then, that when Berio set about a producing a cycle of songs for his wife, Cathy Berberian, he would treat her voice as a the versatile musical instrument it was, and more importantly, give her an interpretive license as broad as those given to performers of other musical instruments. Further, he chose texts that were conducive to the kind of expression he felt compelled to relate: three poems by E. E. Cummings. His treatment of the text and instrumentation also demonstrates an attention to structural detail that belies the seeming discontinuity of the textual material.

## STRUCTURAL ELEMENTS

"Circles" is written for female voice, harp and two percussionists, each with a large array of instruments from conventional (xylophone, marimba) to exotic (lu jon gongs, Mexican bean rattle). Like the poetry from which the music takes its inspiration, there are strong visual elements to the work's performance. These are integrated into the structure of the music itself in a layered fashion right down to the motivic level.

Upon close scrutiny of the score, we see that Berio's compositional ideas and planning go well beyond the patterning of pitch collections, registration, timbre and texture. A great deal of attention is also given to placement of the musical forces on the stage and highly specialized instrumentation and performance techniques. Beginning with the instrumentation and performance notes on the inside of the title page and its adjacent, the first visual element of "Circles" is quite apparent. The two stands of percussion are arranged in circles. Closer inspection also reveals that each circle of percussion comprises three concentric circles. Each circle of each stand is also arranged in a particular way – the outermost is made up of wooden percussion, the middle layer is membrane or skin percussion, and the innermost ring is metal. Further, the vocalist is directed to walk upstage before movements IV and V in a semicircle beginning in front of the percussionists and harp and ending next to the harp in between the two percussion stands.

In the next level, the movements of "Circles" are "mapped" in a cyclical fashion (see chart). Berio chose three poems to set into five movements, repeating poems 2 and 1 as movements IV and V, respectively, giving the piece an A-B-C-B-A structure. This pattern is carried on in the treatment of each instrumentalist's performance material in almost a literal sense: The voice part is melismatic in movement I, the first part of IV and the last part of V. In each case, the melisma are accompanied by pitched instruments (harp alone in movement I and the first part of IV). A combination of speech and singing is used in II, the last half of IV (with a chorus from the other performers) and first part of V. A codetta in movement III includes a spoken chorus described further below.

In movement III, the climactic point in the work, there is another layer of structure introduced between the voice and overall accompaniment: First, the vocal performance cues are highly variable and the accompaniment aleatory (the vocalist is also given liberties in certain aspects of performing the written notes). After a clearly delineated climax (in spite of the seeming randomness of the music to that point), the accompaniment becomes more controlled. There is a codetta here, however, that heralds the retrograde aspect of the last half of "Circles": random phonetic material from the first portion of the movement is presented by the voice and echoed by the other performers. It should be remembered here that "aleatory" in music does not necessarily equate to completely random, but rather a "controlled" randomness or indeterminacy.

Introduction of the percussion instruments into the piece displays further workings of circular ideas. Movement I has no percussion, II uses wood only, III through the first part of V uses a mixture of sound materials with the choices indicated by the composer's guidelines in III requiring the performers to rotate around the center of their individual circular stands in order to reach the correct instruments. Notice how this structuring of the percussion performance on the different types of instruments yields three instrument classes over five movements – from outer circle to inner circle of instruments – as opposed to the circular treatment of the texts by repetition (again, three poems set five times). Finally, near the end of movement V, percussionist 2 is directed to "make circular motions in the air" after playing the clap-cymbals (Osmond-Smith, 1991, and Berio, 1960).

## STRUCTURAL DETAILS AND THEIR DERIVATIONS

There is a great deal more to be said about both "Circles" and the poetry that drives it than the many allusions to the work's title. This discussion will require a careful comparison of the text with each of its settings. Therefore the text is included in its originally published form.

Movements I and V are based on the following poem from the collection Cummings called "Impressions" (Cummings, 1972):

```
stinging
gold swarms
upon the spires
silver

chants the litanies the
great bells are ringing with rose
the lewd fat bells

and a tall

wind
is dragging
the sea

with

dream

-S
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At first, one may wonder why the words are spaced like that and what happened to the punctuation? And why the capital S at the bottom with a preceding hyphen? Instead of trying to answer these questions directly or technically, I invite the reader to try reading it aloud, allowing the placement of the words to direct the inflection at least in part. Especially, read the "words" "dream -S" just the way you might read it in a book, making the "z" sound noticeably after the word.

To me, it sounds as follows: "Stinging gold swarms upon the spires silver <pause> chants the litanies the great bells are ringing with rose <shorter pause> the lewd fat bells <long pause, more slowly> and a tall <pause> wind <pause> is dragging the sea <long pause> with <long pause> dream <long pause, somewhat louder> 'z'". There seems to be a definite feeling that this poem is about falling asleep while watching the setting sun; how its light stings the eyes, church-bells perhaps creating illusions of chanting voices all dragging away the last vestiges of consciousness like the inexorable pull of the ocean tide; the -S like the breath's capitulation into a snore.

Berio appeared to have been especially impressed by that last letter in movement I. Again and again, he calls for the voice to delay enunciation of final consonants of the words for extended periods. At the same time, the harp accompaniment reinforces them quite directly, starting with a forte attack of a two-string B-natural at the end of the first syllable of "stinging." Judging by the placement of the text in the score of movement I, he scans the poem somewhat differently than I:

```
stinging gold swarms upon the spires
silver chants the litanies
the great bells are ringing
with rose
the lewd fat bells

and a tall wind
is dragging the sea
with dream
-S
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I submit that this possibility for multiple interpretations of the poem's scansion is an additional beauty of Cummings' carefully crafted visual structures and purposeful use of words that may act as both nouns and verbs (e.g. "swarms" and "chants"). I further argue that such opportunities for multiple interpretation could be what inspired Berio to use aleatory passages in the remaining movements. If one considers Cummings' punctuation, syllabication and spacing of text as guidelines as to how the poetry be scanned, then Berio's usage of aleatory notation becomes a direct metaphor for the textual layout. Through his notation, Berio instructs a performer to execute certain actions on certain instruments within a timeframe but includes no specifics as to the order in which those actions occur. Support for this argument is strengthened by the fact that the greatest amount of aleatory performance occurs in movement III. Of the three poems Berio chose, the one beginning with the construct "n(o)w" – set in mvt. III -- has the greatest number of Cummings' modifications to the text (see below). It should come as no surprise that the subject of the poem is a thunderstorm and its aftermath and Berio depicts it by using all the instrumental forces available.

n(o)w  
the  
how  
dis(appeared cleverly)world  
is Slapped:with;lightning  
!  
at  
which(shal)lpounceperackw(ill)jumps  
of  
ThuNdeRB  
LoSSo!M iN  
-visablya mongban(gedfrag-  
met ssk?ywha tm)jeami ng(essNessUn  
roll)ing! yS troll s(who leO v erd)joma insCol  
Lide.!high  
n , o ; w : theraincomIng  
o all the roofs roar  
drown!nsound(  
&  
(weare like)dead  
)Whoshout(Ghost)atone(voiceless)O  
ther or im)  
pos  
sib(ly as  
lecp)  
But !look—  
s  
U  
n:starT birDs(IEAp)Openi ng  
t hing ; s(  
--sing  
jall are a.l(cry aLl. Secto(ver All)Th(e green  
?earth)N,ew

There is another, less obvious aleatory device that Berio employs throughout the piece as a whole: annotating specific performance liberties to the vocalist. These are described in the performance notes accompanying the instrumentation layout and range from giving the soloist the choice between singing a true pitch and an approximation to directing the other performers in some of their actions by giving the beat or the attack times to them. Again, this is something that is not perceptible in auditioning a recording of the music, but is quite visible during a live performance, just as the visual devices in Cummings' poems are not discernable to one listening to their recitation.

If one believes Cummings' poetic gestures are merely distortions of syntax among other things, let me offer the opening line of the poem selected by Berio for movement II: "riverly is a flower gone softly by tomb." It seems to me Cummings is making a deft use of poetic license. Would it scan better as, "When a flower dies, its petals fall softly like the flow of a river"? Agreed, it's more traditional syntactically, but is it poetry? Is the emotional content – or more critically, its impact -- the same? I think Cummings challenges his readers to look deeper into the meaning behind the words by pushing them away from traditional language use as did his peers. This is what is behind the use of Spanish in the Lord's Prayer parody in Hemmingway's "A Clean, Well-lighted Place" or the Sanskrit passage at the end of Eliot's "Waste Land." It is unexpected, and makes us pause and consider the meaning more carefully. Coining the word "riverly" gives a much better sense of image and motion than, say "river-like," and – by definition of "–ly" endings for adverbs – could even be considered grammatically legitimate.

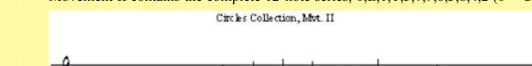
As we will see in the analysis of the music, Berio widens the timbral character of the voice from the melismatic *cantabile* of the first movement to less pitched – but not spoken – song. This is reflected in the instrumentation which now includes pitched wood (marimba, xylophone) and approximately pitched wood and skin (temple blocks, bongos). Circular structures recur here in the call-and-response nature of the motivic material between the voice and various instruments. Further exploitation of the cyclic idea is carried out through wider registral movement in the vocal line (e.g. the opening three pitches span the interval of an eleventh) which seems to be continuously pulled back to a tonal center of C#5 (C4 = middle-C) by the pitched accompaniment. There is also a continuation of the reinforcement of certain phonetics within the text, such as the "sh" blend in the words "anguish" and "hushed." The first is answered by tremoli in the harp and xylophone, the second by a triple-piano roll on the snare-drum with the snare on.

## PITCH MATERIAL

"Circles" remains true to its name right down to the pitch level. Besides the structural dictates of the movements, the foreground pitch collections of each contain a representation of the same three-versus-five pattern. This is most noticeable when analyzing the interval content, although the arrangement of the pitches also exhibits this pattern.

Movement I contains the following pitches in the order shown (derived from the opening soprano and harp lines – C = 0): 2,9,0,1,3,7,5,4,E,6,3,5,4,6. If we consider the opening D-E as introductory, we find that the remaining pitches form two sets of 5 on each side of a central pair that are a perfect fifth apart:

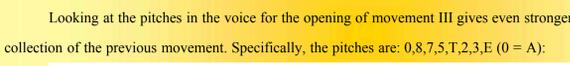
Circles Collection, Mvt. I



The collection comprises pitch classes of seconds, thirds and fifths.

Movement II contains the complete 12-note series, 0,E,1,T,5,7,9,6,3,8,4,2 (0 = C#):

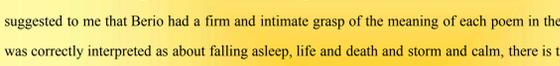
Circles Collection, Mvt. II



This collection has some interesting properties that appear to relate to the structure of the movement and foretell the next. Looking at the three tetrachords in the row, we find the first and second almost exact transpositions on interval 5, and each contains interval classes 1, 2 and 3. The last tetrachord is a bit enigmatic. It does begin a minor-third below the last note of the previous tetrachord, but the interval classes are 5, 6 and 2. What may have more bearing is that the interval spacing may be preparatory for movement III. It appears also, that if the pitches in the last tetrachord are rearranged to read D#, E, F, A, then the last five notes of the row will be almost the same as the first five of Mvt. III creating a near palindrome. At least there are even common tones between those two sub-collections to create a strong transition.

Looking at the pitches in the voice for the opening of movement III gives even stronger evidence to support the bridging analysis for the last five notes in the collection of the previous movement. Specifically, the pitches are: 0,8,7,5,T,2,3,E (0 = A):

Circles Collection, Mvt. III



Voilà, a retrograde-inversion palindrome. Interestingly, this tightly ordered grouping introduces the most chaotic of the five movements. And here's more of our friendly five-vs.-three structures: the palindrome starts with a major third (interval class four) and is divided by a perfect fourth (interval class five, and the inverse of a perfect fifth).

## CONCLUSION

Luciano Berio's "Circles" exhibits a strong correlation between its compositional elements and the literary devices in the Cummings poems used for its text. This correlation permeates the music from the intricacies of individual pitch groupings to the structure of the entire cycle. Where Cummings used visual devices to entice the reader to more expressive nuance in reading his works, Berio used visual and special constructs to create a broader spectrum of expression in the music to entice the listener to respond. Many elements of intricacy in the structure of the text were directly reflected in the treatment of the voice and accompaniment.

Most fascinating of all, is the intricate integration of all the elements of the music into a multitude of circular forms from the largest to the smallest. It immediately suggested to me that Berio had a firm and intimate grasp of the meaning of each poem in the small and in the large. Where each individual poem's foreground subject was correctly interpreted as about falling asleep, life and death and storm and calm, there is the connecting concept of the cyclical underpinnings of all three subjects and their intrinsic connection to our lives.

Today, mathematicians refer to the hierarchic layering of similar structures (self-similarity) found in "Circles" as fractal. It is the basis for the mathematical concept of fractal geometry – a subject not formally entered into the public domain until 1975, 15 years after "Circles'" completion. Fractal geometric forms are found in abundance in nature, and natural phenomena such as clouds, lightning, and flower-petals have been proved to be fractal in shape. A better basis for the settings of these three poems would be hard to find indeed and I consider it singularly gratifying that someone of Berio's creative stature may have anticipated this.

## CITATIONS