Palindromes, Poems, and Geometric Form

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Emphasizing the similarities between the form of the palindrome and the forms of certain modern American short poems, I urge the recognition of a unique kind of little-studied, modern, cyclic, poetic form which, lacking an established term, I call "palindromic" form. Widely used by twentieth-century American poets, this kind of form is distinguishable from the better-known, traditional kinds of poetic form, though it sometimes occurs in combination with them. Cedric Hubbell Whitman's discussion of ring composition and hysteron proteron in the *Iliad* reveals the classical origin of this form and suggests that its larger class is geometric form.

The words "palindrome" and "palindromic" refer to a well-known formal pattern that is shared by certain words, clauses, sentences, paragraphs, and verses: e.g., "Odo tenet mulum, madidam mappam tenet Anna, Anna tenet mappam madidam, mulum tenet Odo."[1] It is this formal pattern, which always occurs at least on the level of the letters in these language units, that is important here.

The palindrome is essentially a reversal pattern that pivots around a center. However, since the quantity of letters in a palindrome may be odd or even in number, the center of a palindrome might be one of two kinds. If there is an odd number of letters, the center will be a non-repeated letter, as the "c" in "A man, a plan, a canal—Panama!"[2] And if there is an even number of letters, the center will be a point in space, as it were, between two identical letters, as between the two "a's" in "Subi dura a rudibus."[3]

Except for their reversal pattern, the twofold nature of their centers, and the equality and reversed identity of their two halves, palindromes are not fixed formally and are highly variable in length and complexity.[4] Indeed, a palindrome may vary from

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these ideal conditions and still be a palindrome. For instance, the comma and the word "and" are not part of the reversal pattern in "as Lewd did I live, and evil I did dwel."[5] The possibility of such variations, which are generally held to a minimum, might be a further characteristic of the palindrome, inasmuch as the demands of syntax and meaning sometimes make them unavoidable.

Finally, it must be insisted that the form of the palindrome—at least as it is being treated here—is essentially a visual form. It is the letters as visual surface configurations addressed to the eye, and not the sounds of the palindrome as sounds, or the meaning of its content as meaning, which are repeated in reverse. A visual, prototypical cyclic form of any linear writing, the palindrome is the sign or figure of a type of formal arrangement of tensions, whether viewed as at rest or in motion, among units of language, the tensions being those characteristic of vocabulary, syntax and meaning.

With the foregoing as background I would like to turn to the analysis of three modern poems: William Carlos Williams' "The Locust Tree in Flower" (the shorter version), E. E. Cummings' "[If you can't eat you got to]," and Marianne Moore's "To a Chameleon." These poems have been chosen deliberately for this study inasmuch as their forms consist of language units of various kinds—words, clauses, sentences, lines, and stanzas—arranged around their centers in symmetrical, palindromic-like patterns. Hence, by analogy, the term "palindromic form," which I shall use often here. What I am suggesting is that three study poems appear to belong to a single, frequently used, species of form. Moreover, since this species of form is really neither continuous, stanzaic, nor fixed, according to the textbook definitions of these kinds of form,[6] perhaps the proper class designation for palindromic form is geometric form. Letting this be as it may until later, I would like to acquaint the reader with this species of form through the analysis of the three study poems. Lest I be misunderstood, let me emphasize that I am not insisting that these poems are palindromes in the sense that we know the latter, but that, working by analogy, their forms in many respects are like the form of the palindrome and that, consequently, they appear to belong to a single formal class of poems.

I. William Carlos Williams' "The Locust Tree in Flower."

	Words	*Syllables*	*Letters*
Among	1	2	5
of	1	1	2
green	1	1	5
stiff	1	1	5
old	1	1	3
bright	1	1	6
broken	1	2	6
branch	1	1	6
come	1	1	4
white	1	1	5
sweet	1	1	5
May	1	1	3
again	1	2	5[7]

Obviously, whatever formal patterns Williams' "The Locust Tree in Flower" contains have to involve such things as the number of letters and syllables per each one-word line, as well as the vowel and consonant values of the thirteen words. Nevertheless, the amount of patterning in the poem is surprising. For example: all the lines are made up of one-syllable words except the first, the middle, and the last lines, all of which are made up of two-syllable words. The first line ("Among") and the last line ("again") are similar in stress pattern (◡ /) and in their vowel and consonant values; they both begin with the unstressed *a*-sound and they both contain the consonants *n* and *g* in their stressed syllables. These two lines are also related in terms of letter-count; each contains five letters. In this respect they are like the third and fourth lines from the beginning and the third and fourth lines from the end of the poem, all of which also contain five-letter words. These six lines are the only five-letter lines in the poem. This is to say that the patterning in the poem indeed involves line-length, not only in terms of the number of words and syllables per line but also in terms of the number of letters per line.

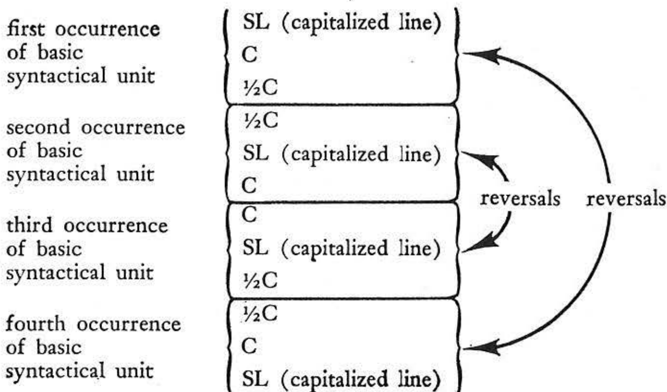
head of the third line; and in the fourth occurrence, only at the head of the fourth line. The stanza division of the poem is such that each of the capitalized lines is one of the four one-line stanzas in the poem, a fact that has structural significance which will be pointed out later. In the area of punctuation, the punctuation mark in the third line of the unit (see above) changes from a colon to a semicolon to a comma to a set of parentheses throughout the successive repetitions of the basic syntactical unit. And in the area of vocabulary, the words occurring at the three numbered and underlined points (see above) change with each repetition of the basic syntactical unit, as follows: I: 1 *eat*, 2 *smoke*, 3 *smoke;* II: 1 *smoke*, 2 *Sing*, 3 *sing;* III: 1 *sing*, 2 *die*, 3 *die;* IV: 1 *die*, 2 *dream*, 3 *dream*. Apart from these changes, the basic syntactical unit remains the same throughout the poem.

In respect to line length and structure, the four lines of the basic syntactical unit remain the same in word-count, syllable-count, and, presumably, in stress-count throughout the poem. In each of the four lines, from first to last, there are always seven, five, six, and four words, and seven, five, seven, and four syllables. (The reader can work out the stress pattern of the lines for himself.) These constancies of line-length and structure result in lines of two general lengths throughout the poem: 1) short lines of four or five syllables and four or five words, and 2) long lines of seven syllables and six or seven words. Starting with a long line ("If you can't eat you got to"), these long and short lines are alternated throughout the poem.

Finally, there are two kinds of stanzas in the poem—single-line stanzas and couplets, which will be symbolized here as SL (single-line) and C (couplet). Throughout the poem, the combination of these two stanzas makes the following pattern: SL // C // C // SL // C // C // SL // C // C // SL. Each of the single-line stanzas (SL) is one of the four lines that begins with a capital letter; these are balanced palindromically throughout the poem.

Apart from the placement of these capitalized lines, at least two other major instances of palindromic patterning occur in the poem's overall form, due to the manner in which the basic syntactical unit, with its four lines of fixed length and its progressively shifting capitalization, is divided into the two stanza patterns (SL and C) throughout the poem. One of these palindromic

arrangements occurs as a result of the alternation of long and short lines in the combination of the two stanza patterns. The effect of this is that, of the ten stanzas in the poem, the line-length pattern of the first four stanzas (long/ /short/long/ /short/long/ /short) is repeated, though not in reverse, in the line-length pattern of the last four stanzas, while the two middle stanzas (both couplets) possess their own unique pattern (long/short/ /long/short/ /). Also, the first and last single-line stanzas of the two, similar, four-stanza groups are the four capitalized lines in the poem. Perhaps the following schema will help to clarify this patterning:



The other instance of palindromic patterning becomes visible when one notices that the four lines of the basic syntactical unit are divided differently between single-line stanzas and couplets in each of the four occurrences of the unit. In terms of this division, the first occurrence of the syntactical unit is the reverse of the last, and the second is the reverse of the third. Also, in this pattern again, each of the single-line stanzas (SL) is one of the four lines that begin with capital letters; the positions of these four lines figure into this palindromic pattern, too. Perhaps the following schema will bring this pattern into the light (SL=single-line stanza, C=couplet, $\frac{1}{2}$C=either the first or the second line of a couplet):

Stanza	1	2	3	4	5	6	7	8	9	10
Line-length (s = short, l = long)	l	s/l	s/l	s	l/s	l/s	l	s/l	s/l	s
Stanzas with capitals	x			x			x			x

Similar, though not reversed, sequences of stanzas.

It should be clear by now that the form in this poem is far more complex and subtle than the content. In fact, just as there appears to be no significant content in the lives of the narrator and the "kid" (Is this a woman or a child?), so there is none in the poem itself. Couched in four negative conditional structures, each followed by a command or invitation to sleep, the poem's content exhausts the possibilities of eating, smoking, singing, dying, and dreaming, and repeatedly offers sleeping as the only thing that the narrator and the "kid" can do, or rather, have the wherewithal to do. All this is done with a minimum of contentual, syntactical, rhythmical, and (apparently) inflectional change, and, consequently, with a maximum of repetition and monotony in all these areas. Thus, by giving as little as it can of anything new at any point, the poem formally and contentually dramatizes the narrator's point: "we aint got / nothing."

III. Marianne Moore's "To a Chameleon."

	Syllables	*Rhyme scheme*
Hid by the august foliage and fruit	9	a
of the grape-vine	4	b
twine	1	b
your anatomy	5	c
round the pruned and polished stem,	7	d
Chameleon.	4	e
Fire laid upon	4	e
an emerald as long as	7	f
the Dark King's massy	5	c
one,	1	g
could not snap the spectrum up for food	9	a
as you have done.[9]	4	g

Palindromic patterns occur in at least three areas of Moore's "To a Chameleon"—the syllabic length of the lines and their sequence in the poem, the rhyme scheme, and the visual shape of the poem on the page—all of which work together visually and aurally to express the content of the poem. As one would expect, all of them pivot around the center of the poem, which occurs between lines six and seven ("Chameleon. / Fire laid upon") and divides the poem into two halves that are identical formal reversals of each other. Each half contains one thirty-syllable sentence that is cast into six lines in such a way that the following palindromic pattern occurs in the syllables-per-line count throughout the poem: 9/4/1/5/7/4./4/7/5/1/9/4. Treated as two two-line units, the first two lines and the last two lines are syllabically identical (9/4 syllables and 9/4 syllables) though not reversals of each other. Then, starting with the third line from the beginning and the third line from the end, and working toward the center, the lines are syllabically identical and in reverse sequence; including the variation of the first two lines and the last two lines, the overall pattern is syllabically palindromic. This is, or results in, an aural or heard pattern. If one reads the lines of the poem as lines and listens closely to the line-to-line movement of the sound, he can hear this pattern in the poem. The pattern receives a little reinforcement from the identity of the word-counts per line between the second line from the beginning of the poem ("of the grape-vine": four words) and its corresponding line in the second half, which is the last line of the poem ("as you have done": four words), and between the third line from the beginning of the poem ("twine": one word) and the third line from the end of the poem ("one": one word). Occurring in corresponding places in the palindromic pattern, these two sets of lines are the only places where identical word-counts per line reinforce the pattern. Apart from this, the word-counts of corresponding lines in the pattern are only approximate and need not be considered here in order to see the palindromic form of the poem.

The aural or heard palindromic form in the poem is also reinforced by the palindromic arrangements in the poem's rhyme scheme. If we include approximate rhymes, of the twelve lines in the poem all but two rhyme in pairs, the rhyming lines as well as

the unrhyming being similarly placed in the poem's overall palindromic pattern. The unrhyming lines are the second line from the end of the first half ("round the pruned and polished stem") and the second line from the beginning of the second half ("an emerald as long as"). Of the five pairs of rhyming lines, the rhyme words of three pairs ("fruit" and "food," "anatomy" and "massy," and "Chameleon" and "upon") occur at the ends of corresponding lines *across* the two halves of the poem. Each of the other two pairs ("vine" and "twine," and "one" and "done") are located in corresponding positions *inside* the two halves; the last word of the initial two-line unit rhymes with the third line from the beginning, and the last word of the terminal two-line unit rhymes with the third line from the end. There are other subtleties in this rhyme scheme, but this much is sufficient to illustrate that the rhyme scheme is integrated into the poem's palindromic form.

Finally, the poem's visual shape-on-the-page also reinforces this form. This shape is determined partly by the fact that the poem contains twelve lines in continuous sequence, and, more importantly here, partly by the indentation pattern and the visual length of the lines. As one can see by looking at the poem on the page, the indentation pattern moves progressively to the right throughout the first half of the poem, and then progressively to the left throughout the second half. This movement not only parallels the division of the poem into two halves of six lines and one thirty-syllable sentence each, but it also parallels the syllabic identity of corresponding lines in the two halves by giving them identical indentation. Thus, the indentation pattern of the first two lines of the poem is identical to that of the last two lines, the indentation of the third line from the beginning is identical to that of the third line from the end, and so on, moving toward the center of the poem from both ends. Integrated with the syllabic palindromic pattern of the poem, this indentation pattern is the principle visual structuring of the poem, receiving only incidental, approximate reinforcement from the visual length of the lines. This latter reinforcement is most noticeable among the pairs of corresponding longer and shorter lines in the poem, particularly the first line and the next to the last line, and the two one-word, one-syllable lines. Because they are seen rather than heard, these visual patterns

bring the palindromic form of the poem to the eye in a manner that reinforces the patterning which is heard in the poem.

The foregoing analyses illustrate, as well as can be illustrated by a minimal number of studies, what is meant by palindromic form in individual short poems. It is possible, however, to say more about this kind of form by generalizing some of the information from the analyses. To this end, it is useful to list the elements that are involved, to one degree or another, in the palindromic forms of the study poems. These elements are:

1. the stress count per line;
2. the letter count per line;
3. the syllable count per line;
4. the word count per line;
5. the line count and structure per stanza per poem;
6. the stanza count and structure per poem;
7. the sonics (e.g., rhyme, alliteration, assonance, etc.);
8. the visual surface of the poem on the page;
9. the syntax, including capitalization and punctuation.

With few exceptions, these elements are generally dealt with in the three traditional prosodies (accentual, syllabic, and accentual-syllabic), the exceptions being items 2, 4, 8, and perhaps 9. While these exceptions have no doubt been dealt with prosodically from time to time down through the centuries, it is only in the twentieth century that they have been treated extensively by American poets. At any rate, in terms of what it includes and organizes with its peculiar design, palindromic form is uniquely comprehensive and flexible; there being no fixed metrical or formal elements for such form, any and all of the elements on the list, or rather, of a given poem, might be included in the palindromic patterning.

This is obviously a different case from that of the three traditional kinds of poetic form, all of which have their particular formal requirements: 1. fixed form, as in the case of the sonnet (the most frequently used fixed form in English-American poetry), is determined by a certain overall formal arrangement of lines and stanzas of particular lengths and structures, complete with particular rhyme schemes; 2. stanzaic form, which is characterized by the repetition of a certain stanza structure, or set of stanza structures,

throughout a poem; and 3. continuous form, which is characterized by the continuous, run-on repetition of one or more line structures throughout a poem. Form in these three kinds of form is essentially a matter of line and/or stanza structures of traditional kinds; indeed, traditional foot metrics are indispensable to any thoroughgoing discussion of these three kinds of form. At the same time, none of these three kinds of form is in any way determined by, or characterized by, any special consideration of the following things, any or all of which might figure into palindromic form: the number of letters per line, the number of words per line, the number and kinds of syntactical units in a given poem (including the nature and the placement of capital letters and punctuation marks), and the visual surface of the poem. To repeat, this is all different with palindromic form, for which there are no particular, identifying, textural or formal elements—only a particular formal design—and which therefore might include and organize any or all of the textural or formal elements of a poem as part of the pattern. Interestingly, as a result of this, it is possible for a poem in fixed or stanzaic or continuous form also to possess a palindromic form. Indeed, Moore's poem is in continuous form, while Williams' and Cummings' poems are in stanzaic form, though these terms alone do not fully and satisfactorily describe their forms. One could imagine a similar problem with a poem in fixed form—perhaps a sonnet—whose syntactical units make a palindromic pattern. All of this would seem to suggest that palindromic form is something different from the three traditional kinds of form, even though it sometimes includes and organizes the same textural and structural elements as they do, and even though it sometimes appears in combination with them in certain poems.

As was suggested above, perhaps the larger class of poetic form that palindromic form belongs to is geometric form, a kind of form that has been around for centuries and that many modern poets are supposed to have used, but about which usage little, if anything, has been written. Moreover, the standard handbooks on literature, as well as the basic textbooks on poetry, are mute on geometric form in poetry. The only commentary that I know which provides any extensive discussion of it concerns Homer's poems, particularly the *Iliad*, as in the following passages from

Cedric Hubbell Whitman's analysis of the *Iliad's* form. With the terms "ring composition" and "hysteron proteron," Whitman appears to name the same formal effects that I name with the term "palindromic form."

. . . Less involved with meaning, but more clearly formal and structural, is the phenomenon now known as ring composition. This framing device, whereby an episode or digression is rounded off by the repetition at the end of the formula with which it began, had its origin undoubtedly in the oral singer's need to bind the parts of his story together for the sake of simple coherence. Like the retrospective summaries of preceding action so characteristic of epic, it took both the poet's and the audience's mind back to a point where the next event was to find its orientation. But it has been ably demonstrated that Homer uses this device not only to serve a practical need, but also as an artistic device to give shape and clarity to the sections of his work, which, composed paratactically and with almost equal detail and emphasis in every part, might otherwise fall into an intolerably unarticulated series. . . .

Such a device as ring composition, especially as developed into an archetectonic principle, is wholly consistent with Geometric art. The very name "ring composition" arises because such enclosure by identical or very similar elements produces a circular effect, the acoustical analogue of the visual circle; and circles, especially concentric circles, are prime motifs in Proto-geometric art. In later Geometric, this design is not so common, but the idea of the circle is carried out in friezes of warriors or mourners running back into themselves, whose moving aesthetic principle is unbroken continuity, perfect and perpetual motion. One may indeed find a similar circularity penetrating all Homeric poetry, especially the *Iliad*, not merely in scenes, but in the poem as a whole; and again the root of the principle lies in a practical need. Ever since the time of Cicero, if not before, Homer's habit of returning to things previously mentioned in reverse order has been observed, and sometimes compared to the rhetorical figures of hysteron proteron. This device, doubtless of mnemonic purpose to assist the singer to keep in mind what he has said before, is also pregnant with stylistic possibilities; like ring composition, it returns to its point of origin and effects circularity of design, while the inverted elements may also be spread out to include as a centerpiece a whole scene or scenes, as in a frame. Thus hysteron proteron and ring composi-

tion, too, suggest not only circularity, but also framing and balance.

Moreover, even as ring composition balances by similarity or identity, the idea of inversion in hysteron proteron is simply a form of balance by opposites. Probably all aspects of formal symmetry depend ultimately upon these two categories of similarity and opposition, as Plato seemed to know when in the *Timaeus* he finished off his cosmology with the two spheres of Sameness and Difference, which revolve in opposite directions. A basic and highly refined intuition of these two categories, which are in a sense the *a priori* ground of all cognition, existed from the first in the classical mind, shaping especially its artistic and philosophic approaches to experience. All peoples of course must possess it, but in the Greeks from Homer on it rose to an extraordinary degree of conscious activity, causing in them a tendency to treat all things in the light of antithesis or identity. Of the two, antithesis seemed to be the more appealing, as perhaps the more dynamic. Sameness is static; antithesis embodies movement around a still point. . . .

The principle of circularity, including concentricity, or framing by balanced similarity and antithesis, is one of the chief dynamic forces underlying the symmetry of Geometric vase design. In the *Iliad,* the old device of hysteron proteron has been expanded into a vast scheme for transcending any mere mnemonic purpose, a scheme purely and even abstractly architectonic. Not only are certain whole books of the poem arranged in self-reversing, or balancing, designs, but the poem as a whole is, in a way, an enormous hysteron proteron, in which books balance books and scenes balance scenes by similarity or antithesis, with the most amazing virtuosity. . . .[10]

Among other things, Whitman helps us to see that palindromic form—or ring composition, or hysteron proteron, or whatever one wants to call it—is indeed verbally geometric; the relationship—not the substance—of its formal elements is definable in terms of geometry.

As it has been treated here, palindromic form in a poem is very much a matter of spatial structuring; it is mainly achieved by the arrangement or placement of similar formal elements, with perhaps a few dissimilar formal elements, in corresponding positions in space relative to a center. The space involved is both the two-dimensional space of printed language and the three-dimensional

space of spoken language. It is a quantitative measurement, the quantity that is actually measured being the visual matter of printed language and the aural matter of spoken language. This measurement of space and the matter that fills it is primary and numerically exact. While time also gets measured in palindromic form in poems in English, it is a secondary and a quantitatively approximate measurement. This is partly because English and/or American are stress or accent oriented languages that are not given to precise, temporal measurement, and partly because the spoken or aural aspect of the poem is subordinate to the printed or visual aspect; the reader gets his clues as to what he should do in speaking a poem by reading its visual aspects. The effect of all this is that palindromic form—like any other kind of form—is both controlled and free, regular and irregular, rigid and loose. It is a chameleon-like kind of form, possessing a variable, flexible design, a variable set of textural and formal elements, and a variable quality of regularity and irregularity.

All of this flexibility and variability show up in the form's different uses in the three study poems.[11] Williams uses it as a type of the seasonal cycle to celebrate the turning of the year and the coming of spring. Cummings uses it to dramatize the repetition and monotony—the closed circle—of poverty. And Moore makes it carry a load of contrasts and comparisons, celebrating natural creature qualities. Indeed, Moore's celebration of the chameleon is implicitly a celebration of the chameleon-like nature of palindromic form; Cummings' use of it to dramatize the closed circle of poverty is implicitly a recognition that "going in circles," so to speak, is natural, basic, human behavior; and Williams' use of it to announce and celebrate the return of spring is also implicitly an announcement and celebration of the form in all nature as well as of the natural life in the form itself. Whatever one calls it, it is a form whose uses and effects are as numerous as the circle's.

1. P[rocope] S. C[ostas], "Palindrome," *Princeton Encyclopedia of Poetry and Poetics*, ed. Alex Preminger, Frank J. Warnke, and O. B. Hardison, Jr. (Princeton, 1965).
2. "Palindrome," *American Heritage Dictionary of the English Language*, ed. William Morris (Boston, 1969).
3. "Palindrome," OED.
4. For an account of one of the longer and more complex palindromic constructions in the world, the reader might see the discussion of the Language Game of classical Chinese in G. Herdan, *Quantitative Linguistics* (Washington, 1964), pp. 207-13.
5. "Palindrome," OED.
6. Laurence Perrine, *Sound and Sense*, 3rd ed. (New York: Harcourt Brace Jovanovich, 1969), pp. 236 ff.
7. William Carlos Williams, *Collected Earlier Poems*. Copyright 1938 by New Directions Publishing Corp. Reprinted by permission of New Directions Publishing Corp.
8. Copyright, 1940, by E. E. Cummings; renewed, 1968, by Marion Morehouse Cummings. Reprinted from *Complete Poems 1913-1962* by E. E. Cummings by permission of Harcourt Brace Jovanovich, Inc.
9. From *The Complete Poems of Marianne Moore*. Copyright © 1959 by Marianne Moore. Reprinted by permission of The Viking Press, Inc.
10. Cedric Hubbell Whitman, *Homer and the Heroic Tradition* (Cambridge, 1958), pp. 252-55.
11. For an instance of palindromic form in a slightly longer poem, see the discussion of Wallace Stevens' "Thirteen Ways of Looking at a Blackbird" in Jerrald Ranta, "Counting and Formal Analysis," *Journal of Aesthetics and Art Criticism*, 29 (1971), 460-62.

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