# PALINDROMY'S UNSEEN "VIRTUAL VERSE" 

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A surprising and little-recognized property of rhyming, end-to-end-palindromic verse is that, contrary to intuition, the order of the lines in such verse may often be transposed in a number of ways without loss of either rhyme or palindromicity. Such line-order permutations can (a) preserve both the verse's original rhyme and palindromicity schemes, (b) change its rhyme scheme, (c) change its palindromicity scheme or (d) change both its rhyme and palindromicity schemes. One consequence of this innate proteanness is that specimens of this verse are frequently accompanied by numerous unseen but latent line-order permutations-call them "virtual verses"-that, among other things, inevitably confuse any attempt to make a thorough census of the genre. This article surveys this phenomenon as it relates to the published corpus of rhyming palindromic verse, with the primary focus on three "standard" rhyming palindromic quatrain types.

## $A B A B$-Rhymed End-to-End-Palindromic Quatrains

The simplest rhyming verse form is obviously the rhyming couplet; inevitably, some palindromes fall into this pattern without meaning to do so. Madam, (/) I'm Adam; Delia sailed (/) As sad Elias ailed; and Now, Ned, I am a maiden nun; (/) Ned, I am a maiden won, e.g., are familiar prose palindromes that could also be written as rhyming couplets. Note, however, that although in these examples of accidental verse the lines could be transposed with no harm to the rhyme, such transposal would in each case destroy palindromicity. Rhyming palindromic verse that is four or more lines long, by contrast, is never the result of accident, and not coincidentally it is at such longer lengths that the capacity for rhyme- and palindromicity-preserving line-order transposability is found in published examples of this verse.

Two rhyming couplets of differing rhyme-sounds can form a rhyming quatrain in one of three rhyme patterns: $A A B B, A B A B$, or $A B B A$. Of these, the second pattern, $A B A B$, is probably the most popular, and thus a prime target for challenge-seeking palindromists. The first $A B A B-$ rhymed, end-to-end-palindromic quatrain ever published, so far as I know, was one by Howard Bergerson in February 1969 issue of Word Ways. Having just assumed the editorship of Word Ways and evidently short of contributed material, Bergerson contributed a quantity of his own writings to that issue, among them a group of palindromic and charade verses (later to be republished in his 1973 Dover book Palindromes and Anagrams) that he characterized as selections from the "fantasque oriental drinking song" "Fling Thong." One of those verses was this elegant quatrain:

> Rail at natal bosh, aloof gibbons!
> Snob-bird named "Red Rose of Mine Desire!"
> Rise, denim foes! Order-demand ribbons,
> Snob-big fool! Ah, so blatant a liar!

With its lyrical phrasing, relatively high proportion of longer words, rhythmic meter and "gib-bons-ribbons" double rhyme, this may still be the best rhyming, end-to-end-palindromic quatrain ever composed, as it probably would be even were the genre much more heavily populated than it is. As things are, the remaining published examples of $A B A B$-rhymed, end-to-end-palindromic
quatrains are quickly cited. J. A. Lindon is the author of four, three of them short-lined poems collected in Palindromes and Anagrams and one a somewhat opaque quatrain that appeared posthumously in 1997. After Lindon and Bergerson, no newly-written specimens of rhyming, end-to-end-palindromic verse seem to have been published until Bill A. O'Connor provided a sixth example, his very rhythmical quatrain that begins Trade moody arts at catnap, Mary, in his article "Palindromic Decalogues" in the May 2001 Word Ways. Lastly, there is the short-lined quatrain (or four quatrains, depending on how you look at it) whose transposition-set expression concludes this article, which brings the published total of $A B A B$-rhymed, end-to-end palindromic quatrains known to me to either seven or ten.

But is a total in this range a realistic one? In point of fact, it can be argued that, owing the existence of the aforementioned "virtual verse," i.e., the host of potential line-order permutations that inhere in many rhyming palindromic verses, the number of different examples of the form that have been implicitly published to date is actually far more than ten; to some extent, the argument turns on exactly what one means by "different," and exactly what one means by "published."

Line-order permutability in rhyming palindromic verse arises from two causes. In the first place, nearly all such verse is composed in such a way that each line is the exact or nearly exact reversal of another line elsewhere in the verse; this is so for the simple reason that it is dauntingly difficult to construct rhyming, end-to-end-palindromic verse in any other way. (To see the less-than-satisfactory results of some attempts to compose such verse without having recourse to this stratagem, revisit "Palimericks" in the November 1997 Word Ways.) The second enabling factor is that, because it is not easy to produce pairs of reversal lines that mesh both grammatically and semantically with neighboring lines in two separated parts of a poem while at the same time accommodating rhyme and meter, the lines in rhyming palindromic verse are generally made to be grammatically and semantically self-contained. When, as is most often the case, both of these preconditions exist, symmetries of rhyme and palindromicity permit permutations of such a verse's line order-the exact number of possible permutations depends upon the number of lines in the verse-that preserve both rhyme and palindromicity while at the same time doing little, usually, to further degrade sensibility in what is generally an already sensibility-challenged composition.

For all varieties of rhyming palindromic quatrains, the number of possible line-order permutations that preserve both rhyme scheme and palindromicity is four. In an $A B A B$-rhymed, end-to-end-palindromic quatrain, for example, if the lines of the original verse are numbered 1234 , then its rhyme- and palindromicity-preserving line-order permutation set is $1234,2143,3412,4321$. (Note that each line occurs once at each position in the permutation set.) To demonstrate the conservation of rhyme and palindromicity in such permutations, written out below is the permutation set for one of Lindon's short-lined poems in Palindromes and Anagrams, "Aid for a Scandinavian Alcoholic." These permutations may also testify to the relative unimportance of line order to such verses' overall sensibility; without looking it up, can the reader say for certain which of these four line-order variants was Lindon's preferred one?

| "Drug is for evil- | Liver of Sigurd: |
| :---: | :---: |
| Live, drab niggard!- | "Drag gin, bar Devil- |
| Drag gin, bar Devil!" | Live, drab niggard!- |
| -Liver of Sigurd | Drug is for evil!" |

Liver of Sigurd:
"Drag gin, bar DevilLive, drab niggard!Drug is for evil!"

> Drag gin, bar Devil!
> Liver of Sigurd,
> Drug is for evil!
> Live, drab niggard!

> Live, drab niggard! Drug is for evil
> Liver of Sigurd -
> Drag gin, bar Devil!

As impressive as such transformations might be, they constitute only a part of rhyming palindromic verse's repertoire of quick-change artistry; as will next be seen, verses such as the above are not only permutable, they are also transmutable.

## An $A A B B$-Rhymed, End-to-End-Palindromic Quatrain

Somewhat less common than the $A B A B$-rhymed quatrain is the $A A B B$-rhymed variety. Like the former type, an $A A B B$-rhymed, end-to-end-palindromic quatrain whose lines are the semantically self-contained exact reversals of others in the verse can permute its line order in four ways that preserve its rhyme and palindromicity. Moreover, an $A A B B$-rhymed quatrain of this kind can be converted into an $A B A B$-rhymed quatrain (and vice versa) by means of any one of a set of four line-order permutations that I call a transmutation set. The transmutation set for converting suitable end-to-end-palindromic $A B A B$ - and $A A B B$-rhymed quatrains into one another is 1324,2413 , 3142, 4231. (Note that here again, each line appears once in each position.)

I know of only one previously published example of an $A A B B$-rhymed, end-to-end-palindromic quatrain: it is Lindon's felicitous poem entitled "Draw, O Howard!" which also first appeared in the February 1969 Word Ways. In addition to possessing a unique rhyme scheme, this verse is possibly also the most perspicuous rhyming, end-to-end-palindromic quatrain ever composed. Indeed, it seems not unlikely that Lindon chose to set his lines in this pattern, rather than in the slightly more elegant $A B A B$ pattern, mainly because they make such excellent sense when arranged in $A A B B$ order. Shown at left below is Lindon's poem, a dialogue between an irate duel-challenger and a cooler-headed duel-decliner (my quotation marks added); at right is what is probably the most natural-sounding of his verse's four $A B A B$ transmutations, the 1324 variant:

## Draw, O Howard!

"Draw, O hot moody sword girder-on!
Draw, or foot it! O negate wit! On!"
"Not I-wet age!-Not I! Too forward!
No red-rig drowsy doom to Howard!"

## Howard's End

> "Draw, O hot moody sword girder-on!" "Not I, wet Age, not I...too forward."
> "Draw, or foot it... $O$, negate wit! On!"
> "No, red-rig-" [Drowsy doom to Howard]

## ABAB/abbb Quatrains

While all rhyming verse has a rhyme scheme, rhyming palindromic verse has an added dimen-sion-its palindromicity scheme, which can vary to the same extent that its rhyme scheme does. If small letters are used to designate their palindromicity patterns, the two quatrain types discussed above, e.g., may be denoted the $A B A B / a a a a$ and $A A B B /$ aaaa quatrain varieties. (More often seen, actually, than either of these types is the $A B A B / a b c d$ quatrain, in which each line is separately palindromic; although such verses can be very effective artistically, their palindromic simplicity renders their line permutations trivial, and so they are not discussed here.) There is, in addition to these two, one other variety of rhyming palindromic quatrain to be noted, and that is the $A B A B$ case in which the first pair of lines and the second pair of lines are separately palindromic, which is to say the $A B A B / a a b b$ case. This case is relevant primarily because Bergerson presented eight examples of such quatrains in his previously mentioned "Fling Thong" collection in the February 1969 Word Ways, and another five in Palindromes and Anagrams.

As was the case with the first two quatrain types, $A B A B / a a b b$ quatrains can be line-transposed in four ways that preserve their rhyme and palindromicity schemes, and can also be transmuted in any of four ways into either of the other two quatrain types (and vice versa). The transmutation set for converting an $A B A B / a a b b$ to an $A B A B / a a a a$ quatrain, for example, is $1432,2341,3214$, 4123. Disregarding artistic considerations, it would appear that some eight or nine of Bergerson's $13 A B A B / a a b b$ quatrains could have been cast, had he wished to do so, as $A B A B / a a a a$ quatrains with little or no revision required-or as $A A B B / a a a a$ quatrains, for that matter.

If nothing else, the indisputable fact that these three quatrain types are readily convertible into one another should dispel any notion that one variety is more difficult to compose than another; rather, their mutual transmutability suggests that these three cases (along with a few others not mentioned) are simply different aspects of the same basic rhyme/palindromicity structure.

## A Table of Standard Quatrain Transposition Sets

Let us call the three published quatrain types discussed above the three "standard" rhyming palindromic quatrains. A table of their permutation and transmutation sets (collectively called their transposition sets) is shown below. The table displays the transmutation sets that convert the quatrain types in the column at left into those in the row at top; where a quatrain type encounters itself, the permutation set for that type is shown.

|  | ABAB/ <br> aaaa | AABB/ <br> aaaa | ABAB/ <br> aabb |
| :---: | :---: | :---: | :---: |
|  | 1234 | 1324 | 1432 |
| ABAB/ | 2143 | 2413 | 2341 |
| aaaa | 3412 | 3142 | 3214 |
|  | 4321 | 4231 | 4123 |
|  | 1324 | 1234 | 1423 |
| AABB/ | 2413 | 2143 | 2314 |
| aaaa | 3142 | 3412 | 3241 |
|  | 4231 | 4321 | 4132 |
|  | 1432 | 1342 | 1234 |
| ABAB/ | 2341 | 2431 | 2143 |
| aabb | 3214 | 3142 | 3412 |
|  | 4123 | 4213 | 4321 |

Inspection of the table discloses a pair of counterintuitive surprises. For one thing, the permutation sets of all three quatrain types (heavy-framed cells) are exactly the same. Superficially, at least, this seems a very remarkable circumstance-one would have expected their differing palindromicity and rhyme schemes to cause them to generate differing permutation sets.

Secondly, the table contains a puzzling asymmetry. Note that while in two of the conversion cases - between $A B A B / a a a a$ and $A A B B / a a a a$ quatrains and between $A B A B / a a a a$ and $A B A B / a a b b$ quatrains-identical transmutation sets govern conversions in both directions, in the case of conversions between $A A B B / a a a a$ and $A B A B / a a b b$ quatrains the two transmutation sets involved are different. In other words, whereas in two of the conversion cases the same key unlocks the door to passage in both directions, in the third case two different keys are required for a round trip. Now, why should this be so?

To "permutable" and "transmutable," add "inscrutable."

## Longer Rhyming Palindromic Verse

Most of the rhyming palindromic verse of more than four lines that has been published is of the variety in which each line is separately palindromic. Apart from some flawed attempts at palindromic limericks, I know of only three published examples of longer-than-quatrain-length, end-to-end-palindromic rhymed verse; two are by Lindon, and are included in his article "A Wry Look at Palindromic Verse" in the November 1972 Word Ways. One of these is a 12-line, $A B A B$ rhymed poem "Esne's Nonsense," and the other is a 14-line Shakespearean sonnet (!) entitled "Dames Pale Lapse Mad." The third example is a five-page, $A B A B$-pattern rhyme-a-thon entitled "'Demi Ran, Nan,' Anna Rimed" which was granted space in the November 2004 Word Ways.

For various reasons, neither "Dames Pale" nor "Demi Ran" is well-suited for line-order permutation, but that is not the case with "Esne's Nonsense"; possessed of an $A B A B \ldots$ rhyme scheme and end-to-end palindromicity, and composed entirely of lines that are the semantically independent exact reversals of other lines, "Esne's Nonsense" is eminently line-transposable. A quick calculation indicates that its line order can be permuted in an astonishing 1440 ways (can that be right?) without altering its rhyme or palindromicity schemes, or noticeably adding to the sum of its acknowledged nonsense. Note that a mere threefold increase in the number of lines in this verse form evidently produces a 360 -fold increase in the size of its permutation set. "Esne's Nonsense" is also transmutable, and could be converted into both $A B A B \ldots$ and $A A B B \ldots$ rhymes in several palindromicity patterns; by analogy with quatrain relationships, one would expect that the permutation and transmutation sets of all such varieties would consist of 1440 members each.

## The Meaning of It All

To summarize, in specimens of rhyming palindromic verse in which some or all of the lines are the semantically self-contained exact reversals of other lines, such lines may often be transposed in an number of ways that preserve both rhyme and sensibility, with little or no harm to sensibility. Such line-order transpositions may either preserve the verse's original rhyme and palindromicity schemes ("permutations") or change one or both of these ("transmutations"). Together, all of a verse's potential line-order variations constitute its complement of "virtual verses." Three "standard" types of rhyming palindromic quatrains in which palindromicity extends for more than one line have been published; these may be denoted the $A B A B / a a a a$, the $A A B B / a a a a$ and the $A B A B / a a b b$ varieties, all of which seem to have made their initial public appearance in the February 1969 issue of Word Ways, courtesy of Howard Bergerson and J. A. Lindon. Line-transposable standard quatrains are each accompanied by a total of 11 different virtual verses, while linetransposable palindromic poems of longer length may command vastly larger retinues.

As to what it all means, the main significance of the existence of virtual verse, so far as I can see, is that it renders problematic any attempt to establish the precise number of "different" specimens of rhyming palindromic verse that may be said to have been "published" at any given time. As was suggested earlier, the question may turn on exactly what one takes the words "different" and "published" to mean in this context. Are a rhyming palindromic verse and the suite of virtual verses that may be implicit in it by virtue of line-order transpositions all different verses, or are they merely the same verse seen from different perspectives? And if one member of a suite of virtual verses is explicitly published, is that tantamount to the publication of the entire suite, or not? To assist the reader in visualizing these questions, shown below are the 12 variants generated by writing out the standard transposition set of an ad hoc short-lined rhyming palindromic quatrain. Glancing over this lot, does it seem to the reader that there are a dozen different verses here, or really only one? Therein lies the verse-counter's conundrum.

ABAB/aaaa
Eilat I saw-
Walton was I!
I saw not law-
Was it a lie!
Walton was I-
Eilat I saw!
Was it a lie
I saw not-law?
I saw not law-
Was it a lie!
Eilat, I saw
"Walton" was I!
Was it a lie!
$I$ "saw not law"?
Walton was IEilat I saw!

AABB/aaaa
Eilat, I saw I saw not law:
"Walton," was I?
Was it a lie?

> "Walton was I"Was it a lie?
> Eilat, I saw;
> I saw not law.

## I saw not law;

Eilat I saw!
(Was it a lie,
Walton? Was I?)
Was it a lie?
"Walton"-was I?
I saw not law,
Eilat, I saw...
$A B A B / a a b b$
Eilat I saw-
Was it a lie!
I saw not law-
Walton was I!

Walton was I-
I saw not law!
(Was it a lie, -
Eilat, I saw?)
I saw not law-
Walton was I!
Eilat I saw-
Was it a lie!
Was it a lie,
Eilat, I saw?
"Walton," was I?
I saw not!...Law!

