

# Aelindromes: Advancing the Palindrome

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## Abstract

One of the better-known forms of recreational wordplay, the palindrome is also one of the most restrictive. This paper is about how, through my attempts to modify the shackles of this constraint, I uncovered a universe of palindromic possibilities, creating the *aelindrome* — a new palindromic restriction based on numerical patterning.

## Introduction

Palindromes are sequences that read the same backwards as forwards. They appear as numbers (1234321, for example); they appear in music, in the works of such composers as Bach, Haydn, and Webern, to name a few [7]; and they even play a crucial role in the structure of our DNA [5] — we wouldn't be who we are without palindromes!

In wordplay and poetry, palindromes operate at various scales. There are word-unit palindromes, or *palindromes-by-word*, such as this palindrome-poem from my collection *Slate Petals (and Other Wordscapes)* [2]:

Time keeps forever.  
It grows us in light.  
The unfurling days  
see shadows turn.  
In turn, shadows  
see days unfurling.  
The light in us grows.  
It forever keeps time.

There are *palindromes-by-syllable* — “tin cap captain” — and, related to this, *phonetic palindromes*, which are fragments of recorded speech that say the same thing when played backwards. “Hair wash in the shower,” remarkably, satisfies the latter constraint.

Normally, however, when we talk about literary palindromes, we are referring to letter-unit palindromes or, as I prefer to call them, *palindromes-by-letter*. Single-word palindromes of this kind include: radar, level, deed, rotator, and deified. One of the most famous palindromic lines is Leigh Mercer's “A man, a plan, a canal — Panama.” [6] Other historic palindromes, both by-letter and by-word, can be found in the extensive work of Howard W. Bergerson [1].

Among my own palindromes are the following one-liners:

HOW TO DRAW A PYRAMID

A zig. Now one zag. Gaze now on Giza! [2]

NIGHTLIFE

Nightlife's a boozy zoo: Base filth. Gin. [3]

THE STRUGGLING BARD

Too long I go, no gig, no loot. [3]

I have also composed palindromic poems, such as this from *Slate Petals (and Other Wordscapes)* [2]:

I sat, solemn.  
I saw time open one poem.  
It was in me, lost as I.

Or this ottava rima from my collection *Stray Arts (and Other Inventions)* [4]:

No omen, I'm a foetal stone.  
I die, null, at a fate lit far —  
die raw, one loss, Selene resewn  
on woe. We lord a memo, star  
afar, at some mad role we own.  
On, we, serene, less sole now are.  
I draft. I let a fatal lune —  
I die, not slate. O, famine moon!

Beyond its structural completeness, one of the main appeals of the palindrome is its natural incorporation of alliterations, consonances, and assonances. This occurs at all the scales mentioned above, with varying degrees of subtlety. (Naturally, it is at its most pronounced in syllabic palindromes.)

I have worked more with palindromes than with any other type of wordplay. This isn't entirely by choice — the fact is, palindromes are *addictive*, and once you get hooked on them, they can encourage various little obsessions: It takes me nearly twice as long to read as it used to, because I now feel compelled to re-read every sentence in reverse. I never pass a road sign without reversing the placenames in my head. I have, on occasion, dreamed palindromes (some of these have been good enough to publish; others haven't been palindromes at all... or palindromes only in the logic of dreamland). I live with the persistent thought that somewhere there exists the perfect reversable phrase, just waiting to be discovered.

### Beyond the Single Letter

For me, palindromic obsession took hold quickly. Having written my first palindrome in 2010, by 2011 I had already amassed hundreds of them, and I was now looking to push the limits of the constraint. My background in formal poetry led me to compose palindromic sonnets and other metred palindromes, but my background in mathematical physics soon took me in a very different experimental direction.

One day, fourteen long, palindrome-filled years ago, I set myself the task of composing a palindromic sonnet inspired by Albert Einstein and his Theories of Relativity [4]. I began the sonnet as I would any themed, long-form palindrome: I made a list of words associated with Einstein and rewrote these words backwards, searching for seeds of inspiration: “Warps”, when reversed, gave me “sprawl”, which was nice. “Time” gave me “emit” — very convenient! “Relative” gave me “vital.” There was plenty to work with.

Nonetheless, I lamented the fact that the man himself could not be namechecked. Sure, “centre blast” allowed “Albert” to appear (the phrase might, perhaps, evoke supernovae?), but there was surely no fitting “Einstein” into the palindrome.

Over the years, I had developed an obsessive interest in anagrams — one equal to my palindrome obsession — and I had become used to compulsively rearranging the letters of every word that I saw. Jumbling up letters came as naturally to me as reading in reverse. For reasons unknown, as I reread Einstein's name, these two preoccupations manifested simultaneously, until I found myself reading “Einstein” reversed not by letter, but by *pairs of letters*:

Ei-ns-te-in <—> in – te – ns – ei

“Intense I!” Another obsession was born, and with it my first “palindrome-by-pairs” (as I would come to call them): “Intense, I am Einstein!” (Note that, just as the d in “radar” serves as an unrepeated, single-letter “pivot”, so the “am” serves as a two-letter pivot. If a pivot appears in a palindrome-by-pairs, it must *always* be a two-letter pivot, just as the pivot in a letter-unit palindrome must always be a single letter.)

Over the following months, I would go on to explore palindromes-by-triples (“May disorder wonder word dismay”: may-dis-ord-erw-**ond**-erw-ord-dis-may) and palindromes-by-quartets (“Start in a star”: star-**tina**-star) — the next logical steps in my palindromic journey. I noticed that the longer the palindromic unit, the more palindromes tended towards the look, feel, and compositional method of word-unit palindromes. Quartets felt like a healthy place for this new obsession to end... only it didn’t.

### Aelindromes

Palindromes, palindromes-by-pairs, and palindromes-by-triples share something in common: While their “palindromic units” may differ, in each case the palindromic unit remains consistent throughout the palindrome.... But consider the following line:

Melody: a bloody elm.

Reading this outside-to-in, we begin with a straightforward palindrome: The front “m” of “Melody” returns as the end “m” of “elm.” However, for the second palindromic unit, the palindrome switches to a palindrome-by-pairs — the “el” of “Melody” remaining intact upon its return in “elm”. For the third unit, the line mutates into a palindrome by triples, with the “ody” of “Melody” reappearing in “bloody.” Finally, the centre of the palindrome (the pivot) presents the four-letter unit “a blo”:

(M)1—(el)2—(ody)3—(a blo)4—(ody)3—(el)2—(m)1

The line, therefore, is a kind of meta-palindrome — its palindromic units are themselves a *numerical palindrome*: 1234321.

I named this invention the “heterogeneous palindrome,” to distinguish it from those palindromes whose palindromic unit is homogeneous (palindromes, palindromes-by-pairs, etc.), but later, on the advice of friends, I changed this somewhat overly technical name to the jazzier *aelindrome* (my initials, AE, merged with the word “palindrome”). [4]

By convention, I subtitle each aelindrome after the forward half of its underlying numerical palindrome, up to and including the pivot. Thus, “Melody: a bloody elm” is an “aelindrome in 1234.”

For me, the pleasure of constrained poetry, and of alphabetical wordplay in general, comes in the unusual phrasings and slanted reality that a constraint invites. Those familiar with palindromes will know that palindromes have a certain *feel*, a certain *voice* — as do anagrams. In the aelindrome, we find a voice somewhere between those of palindromes and anagrams — yet thoroughly its own.

#### The Dale and the Dream

(Aelindrome in 12341234123412341234)

Melody, abloom,  
treads a dale  
in gloomy March.

A season,  
and he abandons  
a search.

May, looming,  
leads a dream  
to a bloody elm.... [2]

In the years since creating the form, I have composed dozens of aelindromes, often taking inspiration from famous mathematical constants such as pi, Euler’s number, and the golden ratio.

The following is an aelindrome in the first twenty digits of the golden ratio. That is, it is an aelindrome written around the numerical palindrome 161803398874989484828484989478893308161. (Note that, just as a unit of 1 letter reflects as a unit of 1 letter, and a unit of 2 letters reflects as a unit of 2 letters, so a unit of 0 letters likewise reflects as a unit of 0 letters. That is, zeros are effectively ignored.)

### **Ratio**

#### **(Aelindrome in 16180339887498948482)**

Old, rational ways gleam  
pictures I coil and frame  
in detained  
theorems  
and in the new score.

In space,  
read the worth;  
read vines now as lines.

Now a sad view or thread,  
thin space renews cores  
and,  
in the ore, mined.

Theme in detail  
and fractures, I compile  
an always-gold ratio.... [4]

### **Conclusion**

In contrast to the homogeneity of traditional palindromes, the aelindrome is a *heterogeneous palindrome*. It uses numerical palindromes to group letters together into segments of varying lengths. As such, it might be considered a *second-order palindrome*, whose reversibility is apparent not in the text itself, but in the structure underpinning the text.

### **References**

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- [3] A. Etherin. *The Robots of Babylon*. Penteract Press, 2023.
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