

PANALPHABETIC WINDOWS IN LITERATURE

MICHAEL KEITH

Salem, Oregon

The *pangrammatic window* in running text has been extensively studied, but its cousin the *panalphabetic window* (containing each letter of the alphabet at least once, and in alphabetical order) has been somewhat neglected. In this note I explore accidental panalphabetic windows in existing works of literature. Specifically, the 1500 works on the Project Gutenberg CD-ROMs were examined by a computer program to determine the smallest window in each, after which some of the more remarkable ones were culled for presentation here.

First, a few ground rules. To be legitimate, the window must not contain a recitation of the alphabet, and it should be "ordinary" prose or poetry--not, for example, a list of names and addresses, or text containing pronunciation symbols (as in a dictionary) or other non-words.

Before conducting a search, it is instructive to estimate what we should expect to find. If we turn to a random page of a random work, start on an A, and count the length of the panalphabetic window we find, how many letters will it have, on the average? This is easily computed as

$$\text{window size} \cong 1/\text{prob}(\text{B}) + \dots + 1/\text{prob}(\text{Z})$$

since we first have to find a B following the A, then a C following the B, etc.

This estimate will be dominated by (and therefore rather sensitive to) the probabilities of the rarest letters. Using the letter frequencies from a large corpus of English text, I calculate an expected window size of about 3000 letters, and this estimate is borne out by experiment. For example, the average panalphabetic window size in Jane Austen's *Persuasion* is 3151 letters. Although natural-sounding panalphabetic sentences of 100 letters or so are easily constructed deliberately (see, for example, the 132-letter example by Howard Bergerson on page 160 of *Making the Alphabet Dance*), accidental windows of 1000 letters or less are quite rare--exceedingly so at 600 letters.

The shortest legitimate window that we found is in Katherine Wormeley's translation of Honore de Balzac's *The Alkahest*, and is 535 letters long (from the capitalized A to the capitalized Z):

Soon, little colloquies followed, a few words said in a low voice behind EmmAnuel's Back, trifling deCeptions which give to a look or a worD a mEaning whose insidious sweetness may be the cause oF innocent mistakes. RelyinG on HIs intimacy with Felicie, Pierquin tried to discover the secret of Marguerite's Journey, and to Know if it were reaLly a question of her Marriage, aNd, whether he must renOunce all hoPe; but, notwithstanding his clumsy cleverness in Questioning them, neitheR Balthazar nor Felicie could give him any light, for the good

reaSon That they were in the dark themselves; MargUerite in taking the reins of power seemed to haVe folloWed its maXims and kept silence as to her projects.

The gloomY sadness of BalthaZar and his great depression made it difficult to get through the evenings.

One might quibble with this finding a bit, for although it is original English prose it's still a translation. The shortest one we found among English-language works, at 574 letters, is from Jack London's *The Valley of the Moon*:

"...Then I hustled the nondescript chickens to market, replAcing them with the White Leghorns. The two scruB Cows that came with the place I sold to thE butcher For thirty dollars each, payinG two Hundred and flfty for two blue-blooded Jersey heifers, and coined money on the exchange, while CalKins and the rest went right on with their scrubs that couLdn't give enough Milk to pay for their board."

Billy NOdded aPproval.

"Remember what I told you about horses," he reiterated to Saxon; and, assisted by his hostess, he gave a very creditable disQuisition on hoRSeFlesh and iTs manaement from a bUusiness point of VieW.

When he went out to smoke Mrs. Mortimer led SaXon into talking about herself and Billy, and betrayed not the slightest shock when she learned of his priZefighting and scab-slugging proclivities.

The shortest such window in the King James Bible, at 841 letters, is in 2 Kings 16:14-19, from "And he brought Also the Brasen altar..." in v.14 to "Now the rest of the acts of AhaZ..." in v. 19. The best window in Shakespeare's plays--only 614 letters--is near the beginning of *Macbeth*, in Act 1, Scene 2:

SERGEANT: ...And fix'd his heAd upon our Battlements.

DUNCAN: O valiant Cousin! Worthy gentleman!

SERGEANT: As whence the sun 'gins his reflection
Shipwrecking storms and DirEFul thunders break,
So from that sprinG wHence comfort seem'd to come
Discomfort swells. Mark, King of Scotland, mark.
No sooner Justice had, with valor arm'd,
Compell'd these sKipping kerns to trust their heeLs,
But the Norweyan lord, surveying vantage,
With furbish'd arMs and New supplies of men,
Began a fresh assault.

DUNCAN: Dismay'd nOt this
Our caPtains, Macbeth and BanQuo?

SERGEANT: Yes,
As spaRrowS eagles, or the hare The lion.

If I say sooth, I mUst report they were
 As cannons oVercharged With double cracks, so they
 Doubly redoubled strokes upon the foe.
 EXcept theY meant to bathe in reeking wounds,
 Or memoriZe another Golgotha...

in which, fortuitously, neither of the speech headings (DUNCAN or SERGEANT) is used in the alphabet sequence.

The Anagrammed Bible

In the August 200 Word Ways, Mike Keith described the creation by him and Richard Brodie of *The Anagrammed Bible* (ISBN 0-9702148-0-4), a verse-by-verse transposition of three literary books of the Old Testament, Proverbs, Ecclesiastes and The Song of Solomon. This 125-page hardcover book is now available from Antan Press, PO Box 3712, Salem OR 97302 for \$20 postpaid.

Remarkably, the authors have been able to capture the essence of most verses, sometimes with wit and humor:

Vanity of vanities, saith the preacher; all is vanity
 It's vain, says the Teacher; trivial, phony, a faint evil

It is better to dwell in the wilderness, than with a contentious and an angry woman
 Sit with annoying town lass? Be well cued: a hermit in tent had no attendant worries

Most of the verses in The Song of Solomon have been collected into groups before transposition, and the results written in the literary style of various famous authors: Poe's "The Raven", Coleridge's "Kubla Khan", Whitman's "I Sing the Body Electric", Byron's "She Walks in Beauty", etc. The authors have thoughtfully provided several pages of notes at the end describing these effusions, and there point out bits of wordplay that might escape the casual reader. For example, The Song of Solomon 2-14 exhibits chiasmus (two actions--here, seeing and hearing--described in original and reverse order):

O my dove, that are in the clefts of the rock, in the secret places of the stairs, let me see
 thy countenance, let me hear thy voice; for sweet is thy voice, and thy countenance
 is comely

He: Come, my love! Catch the tiny chiastic poem:

Focus on her nice facial art,
 Listen to every cute word she attests,
 Key on the contented "yes";
 Lo, my love's thin face enfetters the heart!