

TRISOGRAMS, QUADRISOGRAMS, QUINTISOGRAMS

ERIC CHAIKIN

Margaretville, New York

A previous article introduced the term *bisogram* to refer to a pair of words which does not repeat a letter, and described the search to equal the longest-known example, the 20-letter GUNPOWDERY BLACKSMITH. In this article, I describe the search to equal the longest-known three-, four- and five-word sets: *trisograms*, *quadrisograms*, and *quintisograms*, respectively. The reference will be Webster's Third (W3), using Games Magazine's standard rules of acceptability: solidly-written, uncapitalized boldface entries in W3, and clearly-implied inflected forms. The results will be used as a reference in a future article analyzing a Games contest.

In *Making the Alphabet Dance*, Ross Eckler reports that, drawing from the Pocket Webster dictionary, the maximum number of letters which can be used in three, four and five words are as follows:

humpbacks tingled frowzy (3x22)
 humpbacks frowzy veldt jinx (4x24)
 chintz plumbs fjord gawky vex (5x25)

He notes that the maximum three- and four-word sets for W3 are not known, but are assumed to use 23 and 25 letters, respectively. After a manual search, I have failed to turn up any such examples. However, I have managed to add to the list of 22-letter trisograms and 24-letter quadrisograms, and I have found a family of 26-letter quintisograms (i.e. five-word pangrams), all acceptable in W3. I use the terminology of referring to an N-word set with L letters as (NxL), pronounced "N by L".

When embarking on such a quest, it is useful to note that any single letter is acceptable under the Games rules. It is also useful to have handy the list of words in W3 which do not use a vowel: any consonant, any consonant + S, JG, JP, QT, VD, CWM, JGS, JPS, NTH, PDQ, PFC, QTS, CWMS, PFCS, CRWTH, CRWTHS.

Here are the complete lists found so far. Where an S can be applied to multiple words in a set, it is shown as /S next to the longest word.

THREE WORDS, 22 LETTERS

13,6,3	thumbscrewing alkoxy pdq	[fjvz]
12,6,4	backswordmen flight puxy	[jqvz]
	backswording zythum flex	[jpqv]

11,6,5	patchworked jungly zimbs	[fqvx]
	patchworked jingly bumfs	[qvzx]
11,8,3	furthcoming skewbald pyx	[jqvz]
10,9,3	backlights jurywomen pdq	[vfxz]
	throwback/s jumpingly dev	[fqxz]
	throwback/s jumpingly fed	[qvzx]
	throwback/s jumpingly fez	[dqvx]
	throwback/s jumpingly vex	[dfqz]
	throwback/s jumpingly zed	[fqvx]
10,8,4	patchwork/s vexingly dumb	[fjqz]
	patchwork/s vexingly bumf	[djzq]
	fancyworks, blighted, jump	[qvzx]
	blacksmith, upgrewed, jynx	[fqvz]
10,7,5	jacketings, frowzly, bump	[dqvw]
	prongbucks, mitzvah, fjeld	[qwxv]
10,6,6	patchworks dumbly vexing	[fjqz]
	patchworks jumbly vexing	[dfqz]
	backlights, frowzy, jumped	[bnqx]
	backlights, frowzy, bumped	[jnqx]
	backlights, frowzy, numbed	[jpqx]
	blacksmith, frowzy, expugn	[djqv]
10,9,3	thumpingly backsword fez	[jqvx]
	thumpingly backsword vex	[fjqz]
9,9,4	backsword jumpingly vext	[fhqz]
	boschvark, jumpingly, deft	[qwxz]
9,7,6	humpback/s frowzly tinged	[jqvx]
9,8,5	humpbacks, vexingly, fjord	[qtwz]
	humpback/s frowzy tingled	[jqvx]
	humpback/s delving frowzy	[jqxt]
	humpback/s jingled frowzy	[qtvx]
8,7,7	flaxdrop, zythums, becking	[djqv]

The three new HUMPBACKS FROWZ(L)Y examples are closely related to the original. FLAXDROP ZYTHUMS BECKING represents the most balanced examples found. There are no examples of the form (10,10,2) as GUNPOWDERY BLACKSMITH leaves no two-letter words. A total of five different 2x19s can add three-letter words, contributing ten examples to the 3x22 list. Two examples add a four-letter word to a 2x18. Still no 3x23s--too bad VELDT isn't a verb!

FOUR WORDS, 24 LETTERS

13,5,3,3	thumbscrewing flaky pdq vox	[jz]
12,6,4,2	backswording zythum flex jp	[qv]
10,7,4,3	humpbacked frowzly jinx qts	[vz]
10,6,5,3	backspring zythum fjeld vow	[qx]
10,6,4,4	punchworks gadfly vext zimb	[jq]
10,9,3,2	throwback/s jumpingly fez vd	[qx]
9,7,4,4	humpback/s frowzly vext ding	[jq]
	humpback/s frowzly vext djin	[gq]
	humpback/s frowzly vext jing	[dq]

	humpback/s frowzly vext jinx	[gq]
9,7,5,3	schmaltzy jukebox wring pdq	[fv]
9,6,7,2	humpback/s frowzy delving qt	[jx]
	humpback/s frowzy jingled qt	[vx]
9,6,5,4	backsword fuzing lymph vext	[jq]
8,8,5,3	proxying kvutzah/s fjeld cwm	[bq]
	cymbling kvutzah/s fjord pew	[qx]
8,7,6,3	schmaltz jukebox frying pdq	[vw]
8,6,6,4	vexingly fjord/s thwack bump	[qz]
8,6,5,3	sphygmic kvutza fjeld brown	[qz]

Again, many are in the HUMPBACK FROWZ(L)Y family, including two of these which consist of a 3x22 plus a two-letter word. In only one case does a 2x19 become a 3x22 and then a 4x24. Note that two solutions to the six-letter Jotto problem (i.e. 4x24s with distribution 6,6,6,6) which have been previously cited in Word Ways, BLOWZY FRUMPS JADING KVETCH and DWARFS LYNCHT MUZJIK PEGBOX, cannot be included due to words which are not in W3 (KVETCH and LYNCHT). However, KVETCH is listed in 12000 Words, so it will no doubt appear in W4.

FIVE WORDS, 25 LETTERS

10,5,4,3,3	muskflower batch jynx zig pdq	[v]
	flukeworm/s batch jynx zig pdq	[v]
9,5,5,4,2	boschvark fjeld zingy wump qt	[x]
9,6,6,2,2	humpback/s frowzy jingle qt vd	[x]
9,6,5,3,2	vetchworm squidgy blank fix jp	[x]
	vetchworm squidgy flank biz jp	[x]
	vetchworm squidgy blink zax jp	[f]
	vetchworm squidgy flink zax jp	[b]
9,6,4,4,2	vetchworm squidgy bank flix jp	[z]
	vetchworm squidgy bink flax jp	[z]
	vetchworm squidgy flax zink jp	[b]
8,8,4,3,2	boxingly kvutzah/s derf cwm jp	[q]
8,6,6,3,2	baruzhky foxing veldt/s cwm jp	[q]
8,6,5,3,3	kvutzah/s bingle fjord cwm pyx	[q]
7,6,5,4,3	bostryx muzjik wench flag pdq	[v]
	chintz/y plumb/s fjord gawk vex	[q]
7,5,5,4,4	zemstvo dwarf glyph buck jinx	[q]
7,6,6,4,2	frowzly vexing bumph/s jack qt	[d]

At last, some variety! We first note that any 4x24 plus a single letter is acceptable as a 5x25 under the rules. We have one HUMPBACKS FROWZY example, and a variety unrelated to previous examples.

FIVE WORDS, 26 LETTERS

7,6,5,5,3	frowzly vexing jack/s thumb pdq
8,7,5,3,3	thumbing frowzly jacks vex pdq
7,7,5,3,3	jacking frowzly thumbs vex pdq

A related family of pangrams, using surprisingly common words. (Of course, the task is made easier by the acceptability of PDQ, listed as an adverb, "often not cap".) One can construe various readable sentences such as THUMB FROWZLY, VEXING JACKS, PDQ (hitch a ride with disheveled, annoying lumberjacks, right away). It appears that all other previously-published five-word pangrams (e.g. Borgmann's PHLEGMS FYRD WUZ QVINT JACKBOX) include non-W3 words.

Additions to these lists are invited; we still seek the elusive 3x23 and 4x25. Can they be found in W3?

THE WORD CIRCUS

This marvelous book by Richard Lederer, published in hardcover for \$14.95 as part of Merriam-Webster's Lighter Side of Language series, (ISBN 0-87779-354-9), uses the trappings of a circus--the barker, the bandwagon, the anagram juggler, the palindromedary, the acro bat, words on a wire, clown cars--as a metaphor for the many varieties of letterplay. This material should be familiar to Word Ways readers; many of these topics have appeared in recent issues. Dave Morice's droll illustrations, one of the most charming features of this book, are found on almost every page.

Broadly speaking, recreational linguistic (wordplay) can be divided into three parts--words as collections of letters, words as collections of phonemes, words as carriers of meaning. Although Lederer's earlier books contain all these elements, it is fair to say that their emphasis has been on meaning. *The Word Circus* is pure letterplay and soundplay. Listen to Lederer's thrill of discovery: "Letters beguiled me with their siren song." After citing poet James Merrill's warning that one can drown in the shallows of language, he added "I absolutely loved making *The Word Circus*. Not enough emphasis is given to the fact that writing is an incredibly joyful way to learn. In writing an entire book about an area of language relatively new to me, I discovered what I did not know I knew." Join him in this discovery!