CORE

## ALLITERATIVE PANGRAMS

TRISTAN MILLER
Vienna, Austria
https://logological.org/

A pangram is a text that contains each letter of the alphabet at least once. Some celebrated examples:

- "The quick brown fox jumps over the lazy dog."
- "Pack my box with five dozen liquor jugs."

Short pangrams are fiendishly difficult to devise, optimal examples (i.e., containing all 26 letters exactly once) relying on abbreviations or rare words that obscure the meaning of the text:

- Mr. Jock, TV quiz Ph.D., bags few lynx.
- Cwm fjord bank glyphs vext quiz.

It is interesting to consider what constraints, in addition to minimizing the length, we might place upon the construction of pangrams. Previous work has treated variants such as pangrammatic windows (naturally occurring rather than purpose-built pangrams) $[1,5,8,12,15,16]$, panalphabetic windows (pangrammatic windows that contain all the letters of the alphabet in order) [2, 14], palindromic pangrams (pangrams that read the same backwards and forwards) [3, 11, 17], pangrammatic ladders (word ladders that contain every letter of the alphabet) [2, 10], pangrammatic lists (lists of words that contain at least one word starting with each letter of the alphabet) [13], self-enumerating pangrams (a pangram that accurately inventories its own letters) [9, 18, 19], and many more [7]. In this article, we introduce the alliterative pangram, a pangrammatic text in which every word begins with the same letter. For example, here is one 47-letter specimen for the letter A:

- Awed Avar Afghans admix atypic, arabesque, azulejo ankhs.

As with other pangrammatic constructions, the principal concern with alliterative pangrams is to minimize the length, though it is also important to ensure that the text is grammatically correct and encodes a complete and meaningful utterance. While some allowance can be made for poetic word order, one can't simply throw all sense of syntax out the window. The use of abbreviations, obsolete or specialized terms, and (well-attested) proper names is likewise permissible, though these are to be avoided if possible.

One of the greatest challenges in producing a full suite of alliterative pangrams (i.e., one for each of the 26 letters of the alphabet) is the composition for X . This is because there are no common words that start with an X and that also contains a $\mathrm{Q}, \mathrm{J}$, or W. Here are some options and workarounds:

- There don't seem to be any "proper" words at all that start with X and contain a J. But in times past, the final i of lowercase roman numerals was often written as j. The Oxford English Dictionary has hundreds of such citations, both ordinal and cardinal. So it is probably acceptable for one to use, say, $x v j$ to mean " 16 " or " 16 th".
- Perhaps the only attested X-words that also contain K are the Greek proper name Xenakis and the word xebeck, a variant spelling of xebec (a type of sailboat).
- Likewise, the only X -words containing a Q seem to be xebeque, which is another variant of xebec, and xiquima, a variant spelling of jicama, a Central American vegetable.
- The only X-words with W seem to be a few archaic spellings (like xwld for should) that haven't seen use since the 15th century, and so should be avoided at all costs. But the $O E D$ and many print sources $[4,6]$ do refer to a 18th-century porcelain painter by the name of Philippe Xrowet (also known as Xhrouet, Xhrouuet, Croix, or Secroix). Using this name may be preferable to the alternatives.

Below is a list of 12 alliterative pangrams, written by the author, which readers are challenged to improve upon and to expand to the remaining 14 letters of the alphabet:

A (37): Amplify and advect awrong Ajax's Abkhaz aqua.
B (46): Bipeds, bivouacking by Bamford, bequeath blowzy bijoux.
C (44): Crafty, cawing caziques carjacked complex, crafted Chev cabs.
D (47): DJ Dvorak deoxygenizes Depew's deformable discotheque.
E (48): Elfin Ezequiel extrajudicially embows evoked esophagi.
F (47): Faquir Fitzpatrick fed Freyja Fanshaw foxglove flambe.
G (66): Gretzky's grewsome glitchy genuflexion grieved gaping Garboesque Gujaratis.
I (45): Impawning idols infrequently inject Izhevsk ibexes.
J (45): Jock Japeth's jovial jerquing jynx jumboized jewfish.
Q (57): Qom Qajar Qadhafi quiveringly quizzes quixotic Quapaw Quebeckers.
X (57): Xerodermatic Xrowet xylographs xarif Xanakis's xvj Xuzhou xebeque.
Z (62): Zolaesque, zaftig Zhdanov zaps Zhangjiakou's zanthoxylum zebec Zionward.
X-words not being in abundance in English, the example for X is particularly cryptic, even in light of the discussion above. In case clarification is needed, the pangram can be paraphrased as follows:

Dry-skinned Xrowet (the 18th-century porcelain painter) makes a wood engraving of the 16 th xebec (sailing ship) from Xuzhou (a Chinese city), owned by a xarif (a MiddleEastern money changer) named Xanakis.

## References

[1] Ralph G. Beaman. The pangrammatic window. Word Ways, 5(3):160-161, August 1972.
[2] Howard W. Bergerson. Kickshaws. Word Ways, 13(3):175-185, August 1980.
[3] Dmitri A. Borgmann. Language on Vacation, chapter Pangrammatic Perplexities, pages 130-133. Scribner's, 1965.
[4] Jeff Brown. Linda Roth on detecting the hand of the artist: Sèvres painters on porcelain. Shards: A Newsletter of the China Students' Club of Boston, 7(3):5-6, 2004.
[5] Eric Chaikin. Joaquin through the pangram window. Word Ways, 39(2):71-73, May 2006.
[6] Carl Christian Dauterman and James Parkerr. The porcelain furniture. Metropolitan Museum of Art Bulletin, 18(9):274-284, 1960.
[7] A. Ross Eckler. Pangram variations. Word Ways, 10(1):41-44, February 1977.
[8] A. Ross Eckler. Shakespeare's pangrammatic sonnet. Word Ways, 39(2):138, May 2006.
[9] Leonard Gordon. On pruning trees for pangrams. Word Ways, 25(3):159-161, August 1992.
[10] Leonard J. Gordon. Minimum-length pangrammatic ladders. Word Ways, 23(2):125, May 1990.
[11] Jeff Grant. Palindromic pangrams. Word Ways, 11(2):98-99, May 1978.
[12] Sean A. Irvine. A 42-letter pangrammatic window. Word Ways, 45(4):313-316, November 2012.
[13] Mark Isaak. Two new pangrammic challenges. Word Ways, 35(4):307, November 2002.
[14] Michael Keith. Panalphabetic windows in literature. Word Ways, 34(1):74-76, February 2001.
[15] Mike Keith. New record pangrammatic windows. Word Ways, 35(4):243, November 2002.
[16] Mike Keith. Sub-60-letter pangrammatic windows. Word Ways, 39(1):3, February 2006.
[17] James Puder. Varieties of palindromic pangrams. Word Ways, 32(1):34-47, February 1999.
[18] Lee Sallows. In quest of a pangram (part 1). Word Ways, 25(1):3-8, February 1992.
[19] Lee Sallows. In quest of a pangram (part 2). Word Ways, 25(2):74-79, May 1992.

