

MORE PURPLE TURTLES (PART 2)

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I found more than one-half million Purple Turtles, introduced by Dan Tilque in the August 2004 Word Ways. UX produced the fewest substitutions (41), followed by EX (47). Some are interesting, e.g. ANTHEA/VNTHEA (th is a thorn, in a quotation from c.900), while others contain at least one common English word, e.g. AURA/QURQ (Jabal Qurq Sharaf in Syria), ARENA/ZRENZ (Ayn Zrenz in Tunisia) or AERAE/VERVE (as in Æræ Christi = AD).

Many of the Purple Turtles arise because of alternative spellings or transliterations.

The most common letter pairs are AE, AO, AI, etc., down to LR at tenth position, the first pair not to consist of two vowels. It is no surprise that the most popular words are 4- and 5-letter words. AEAE, AIAI, AOA, AOAO and AUAU all appear between 42 and 44 times. As an example, take AIAI (the ancients thought these letters, an expression of grief, were on the petals of the hyacinth). Replacing the As with most letters of the alphabet produces 22 words like BIBI. The other 22 words (like ABAB) come from replacing the Is. The other common words are mostly 6-letter palindromes or tautonyms, such as POUPOU (OED quote under tuku-tuku) and RELLER (Palindromicon).

Dan Tilque mentions one word, BIBBLE-BABBLE, with 6 substitutable letters (Bs). BRIBBLE-BRABBLE and BIBBLE-BABBING, both in the OED, are longer similar examples. I found 25 such examples, though to avoid tautonyms you have to sacrifice length, e.g. ARA'ARADAWA and OROODOWO are both in Indonesia (and may be the same place). I found rather more 5-letter substitutions, and over 2000 examples of 4-letter substitutions.

I have not fully explored the networks of words that exist. Dan mentions BINGLE-BANGLE (OED has the hyphen) as the longest in a set of three or more words, and gives J and T as substitutes for B. In fact, D, F, J, M and T can substitute for B; moreover, each of these 6 words forms a legitimate reversible pair with every other.

The following list gives the longest phrase or word found for a given number of substitutions:

2 substitutions GQ Jabbanat Sidi Muhammad Daggus, Libya; DT Ariyankurisuddakulam, Sri Lanka

3 substitutions GY Agios Georgios Island, Cyprus; KQ Kekertaussarsuak, Greenland

4 substitutions IU Mangapiripiri Stream or Mangakirikiri Stream, New Zealand;

BP fliberty-flobberty (OED); EU Wainggerengere Creek, Fiji

5 substitutions AE Jabal al Mahari, Tunisia; BD hubble-bubbles (OED);

EI Koherekereke, New Zealand

6 substitutions BT bibble-brabble (OED); AO Ara'aradawa, Indonesia