

MIRROR PALINDROMES

Darryl Francis
 Brampton, Cumbria, England
 darryl.francis@yahoo.co.uk

In *Language on Vacation*, Dmitri Borgmann introduced the concept of ‘mirror palindromes (type A)’. He explained that there are 11 letters of the alphabet (AHIMOTUVWXY) the mirror images of which are identical with the original letters. If a word consisting entirely of such letters is printed vertically, it can be read unchanged in a mirror placed at the side of the word. He offered nine 8-letter examples: AUTOMATA, AUTOTOMY, HOMOTAXY, MATAMATA, MOTIVITY, MYXOMATA, OUTMOUTH, WAIVATUA and WHIMWHAM. He supplemented these with three 9-letter examples: HOMOTAXIA, ITIVIMIUT and MYOMOTOMY. He offered one 10-letter example, the hyphenated HOITY-TOITY, and explained that because the hyphen also remains unchanged in the mirror, this is effectively an 11-character mirror palindrome. These mirror palindromes are displayed here vertically:

A	A	H	M	M	M	O	W	W	H	I	M	H
U	U	O	A	O	Y	U	A	H	O	T	Y	O
T	T	M	T	T	X	T	I	I	M	I	O	I
O	O	O	A	I	O	M	V	M	O	V	M	T
M	T	T	M	V	M	O	A	W	T	I	O	Y
A	O	A	A	I	A	U	T	H	A	M	T	-
T	M	X	T	T	T	T	U	A	X	I	O	T
A	Y	Y	A	Y	A	H	A	M	I	U	M	O
									A	T	Y	I
												T
												Y

Put simply, though, each of these words is composed entirely of letters which have vertical symmetry. I think this provides a more straightforward description of the words’ property than Borgmann’s ‘mirror palindrome (type A)’ explanation. However ...

With some dictionary searching, it’s possible to expand Borgmann’s collection of 8- and 9-letter mirror palindromes. Here are four more 9-letter words and five more 8-letter words: AMYOTAXIA, HAIMAVATI, MYXOMYOMA, THYMOMATA, HATHAWAY, HIAWATHA, MUTIVITY, TAXIAUTO, THATAWAY.

Definitions for these nine mirror palindromes are given below:

AMYOTAXIA	inability to coordinate voluntary muscular movements	W2
HAIMAVATI	a female divinity in Hinduism	W2
MYXOMYOMA	a tumor composed of mucous tissue	W2
THYMOMATA	tumors that arise from the tissue elements of the thymus	UMW
HATHAWAY	Anne Hathway was the wife of William Shakespeare	ODE3
HIAWATHA	the American Indian hero of Longfellow's poem <i>The Song of Hiawatha</i>	UMW
MUTIVITY	tendency to change	W2
TAXIAUTO	a taxi	W2
THATAWAY	In that direction	UMW

Putting these into Borgmann's mirror palindrome style of presentation, we have:

A	H	M	T	H	H	M	T	T
M	A	Y	H	A	I	U	A	H
Y	I	X	Y	T	A	T	X	A
O	M	O	M	H	W	I	I	T
T	A	M	O	A	A	V	A	A
A	V	Y	M	W	T	I	U	W
X	A	O	A	A	H	T	T	A
I	T	M	T	Y	A	Y	O	Y
A	I	A	A					

But searching online has turned up a small collection of additional 10-letter, 11-letter and 12-letter examples of mirror palindromes, thus:

THAUMATOMYIA	A genus of flies in the family <i>Chloropidae</i>	Wikipedia
YAMAMOTOYAMA	A master tea-maker company based in Pomona, California	yamamotoyama.com
AMMATHOTTAM	A village in the Kumbakonam taluk of Thanjavur district, Tamil Nadu, India	Wikipedia
MATHIHUTTAA	Mathihutta is an islet on the southern rim of Huvadho Atoll,	Wikimapia

southern Maldives

MATTITHYAHU	A variant spelling of Mattityahu, a Hebrew first name literally meaning "The gift of God"	Wikipedia
MOTUMOTUAHI	In Māori tradition, one of the great ocean-going, voyaging canoes that were used in the migrations that settled New Zealand	Wikipedia
OUTTATHAWAY	The third single by Australian alternative rockers, the Vines, from their debut album, <i>Highly Evolved</i> (July 2002)	Wikipedia
THAMMATTAMA	A type of drum from Sri Lanka	Wikipedia
WHATUWHIWHI	A settlement at the northern end of Tokerau Beach, on the Karikari Peninsula of Northland, New Zealand	Wikipedia
WHATAWHATA	A place in New Zealand, at 37° 48' S 175° 10' E	Times Index Gazetteer

Putting these into Borgmann's mirror palindrome style of presentation, we have:

T	Y	A	M	M	M	O	T	W	W
H	A	M	A	A	O	U	H	H	H
A	M	M	T	T	T	T	A	A	A
U	A	A	H	T	U	T	M	T	T
M	M	T	I	I	M	A	M	U	A
A	O	H	H	T	O	T	A	W	W
T	T	O	U	H	T	H	T	H	H
O	O	T	T	Y	U	A	T	I	A
M	Y	T	T	A	A	W	A	W	T
Y	A	A	A	H	H	A	M	H	A
I	M	M	A	U	I	Y	A	I	
A	A								

Anyone care to find a 13-letter example, or longer?