

PALMER PETERSON, MASTER FORMIST

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Editor's Note: The following article is my abridgement of one written as a National Puzzlers' League memorial to Palmer Peterson, who died in June 1979 at the age of 77. Few present-day word buffs are aware of the enormous work that went into the construction of giant forms in the late 1800s and early 1900s. One of the precursors of the crossword puzzle (which first appeared in 1913), forms are mini-crosswords of regular shape (squares, diamonds, pyramids, stars and the like) with no black squares. Although some of Palmer Peterson's forms have previously appeared in Word Ways (a magnificent all-Webster hollow diamond in May 1971, forms uniting state names and nicknames in November 1971, forms uniting presidential and vice-presidential surnames in August 1972, and forms using the letter Q in May 1978), most of his finest work was done much earlier; the material in the article below is largely taken from issues of the Enigma between 1928 and 1979.

Palmer Peterson, known as 'Sherlock Holmes' to members of the National Puzzlers' League, was the greatest formist of all time. Lest I be accused of a lack of perspective, I note that his reputation was awesome a generation ago: 'Cincinnatus' called him "the best all-around formist of the present time" in 1942, and a year later 'I. Scream', dean of the National Puzzlers' League, added "('Lateo') was considered by 'Poly' the premier of the formists, but I disagree with that statement, when it comes to our Worthing, South Dakota puzzler of renown".

What caused such extravagant praise among his NPL peers? To begin with, he was a prolific constructor of giant forms of many types -- especially squares, half-squares and pyramids. But many formists worked on these, and a few were capable of equally large creations. Palmer Peterson's challenges to himself were not restricted to size; he created such specialties as compound forms, forms based on a group of related words, and forms nested in forms -- variations only touched on or never even tried by other formists. (It is a great achievement to climb Annapurna, but it is the first climbers of Mount Everest that are remembered.) And finally, he had a keen eye for the lexicographic oddity -- a rhombus with the three bottom lines all reading ABALLATA; a star based on AALSCHMALZ and ZYZZOGETON, the first and last words in formists' lists of ten-letter words; and a half-square based on the plural of a dictionary phrase with four consecutive S's, ROSS'S SNOW GEESE. (It should be noted that formists have never been averse to incorporating common multi-word phrases, dictionary-sanctioned or other-

wise, into their structures.)

Some of the words in Palmer Peterson's forms may look odd to the modern eye. The standard reference for words has usually been the Merriam-Webster unabridged -- the first edition shortly after Palmer Peterson started in 1922, and later the second and third. However, words from a variety of other sources have also been allowed by formists -- archaic dictionaries and gazetteers of the last century, now long out of print and usually available only in the largest libraries. Although Palmer Peterson could, and sometimes did, construct all-Webster ('tag-free') forms, many of his most astounding creations are liberally endowed with words from these lesser-known sources ('tags').

The square is the most popular of forms, and perhaps the one that Palmer Peterson worked on hardest. Most of his effort was devoted to 9-squares, the largest size that has been built in English without using tricks such as tautonyms; he built more of these than any other formist. The first 9-square below moved 'Arty Ess' to comment in 1928 "Sherlock Holmes displays his first 9-square, and it is a beauty, along lines that are absolutely new in this type of form. We can use a lot more like this -- and we expect to". In 1940, 'Arty Ess' wrote of the next "It's real news when some one -- in this case Sherlock -- builds a 9-square and uses nine words that hitherto have not appeared in squares".

S M U S C H A C H	M E T A B O L E S
M A T C H I C H A	E M A N A T I S M
U T E R A N C E S	T A C O T A L P E
S C R O U G E R S	A N O C H I L I A
C H A U M E T T E	B A T H E R I N G
H I N G E S T O N	O T A I R I V E R
A C C E T T U R A	L I L L I V A L E
C H E R T O R I A	E S P I N E L L S
H A S S E N A A H	S M E A G R E S T

The next 9-square is a particularly nice one with only three words not in Webster (Ural River, lislivane, attenende).

The double 8-square is as hard as a 9-square to construct. For a long time, success eluded Palmer Peterson; he even wrote an Enigma article in 1934 about his attempts to build one. Later he made several, one of which is given below.

S P H E R U L A R	C A R A P A N A
P H A N E R I T E	A C E R O T E S
H A R D W A S T E	D I S R A T E S
E N D W E L L E D	E R I E M I N E
R E W E A R I N G	N E S T I N G S
U R A L R I V E R	C A T I N G A S
L I S L I V A N E	E L O N G A T E
A T T E N E N D E	S E R E S T U S
R E E D G R E E N	

Palmer Peterson also created a good many half-squares, and of the

largest size, 15, I believe about half of all those ever made are his. Here are two excellent ones, a double 14 and a regular 15.

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C
  L A
    P O N
      N O O K
        F O N S E
          S O N D E R
            C O R R E S E
              C O N T E R E D
                B O R N E M A N N
                  B A N D E L E T T E
                    L O W C O M E D I E S
                      P O L L I N A T I O N S
                        H A R D E S E N T E N C E
                          D I S M A Y E D N E S S E S
                            M O N T I N G O
                              S O R T E N G O
                                M O N T A R G O N
                                  F O R T B A B I N E
                                    P U N T A A R E N A S
                                      C E N T E R B E L P R A Y
                                        H O L D I N G I N P L A Y
                                          P U T T I N G O N A R A V E
                                            M E E T I N G O N E S E Y E S

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I think Palmer Peterson created more pyramids than any other form. It's one of my favorites because it can be built on such interesting long phrases, and he took full advantage of the possibilities. Among many others, I mention pyramids based on FIN FUR AND FEATHERS; TO WEAR THE TROUSERS, WEARS THE PETTICOAT; THE GOOSE HANGS HIGH; NOBODY KNOWS WHAT, SOMEBODY KNOWS WHAT; and YELLOW WOOLLY BEAR. I believe the TO YOUR TENTS O ISRAEL to be one of his finest. The base is interesting (it is not riddled with E's and S's, and even includes the difficult letters IOOOU), yet only 4 of the 27 words are tagged! Note the similarity of the last three lines in the second pyramid -- another tour de force.

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R U
  S U N S
    A U N C E L
      R I B N O S E D
        M A R T I N S L O W
          C O N T E N T I O N A L
            C A R D I N G E N G I N E S
              C O N D E N S I N G E N G I N E
                T O Y O U R T E N T S O I S R A E L

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Diamonds are one of the most popular forms, but apparently did not attract Palmer Peterson unless he wanted to include a particular word or words. He didn't even try for the record; there exist 17-diamonds and even 19-diamonds, but to my knowledge he never went beyond 15.

T
 W A C
 S O M Y N
 P H R A T O R
 B E E K R I V E R
 V E R N I S S A G E S
 M E R C A N T I L I S T S
 C U R L I N G O N E S H A I R
 H O L D I N G O N E S T O N G U E
 C U T T I N G O N E S E Y E T E E T H

The star is one of the most beautiful of forms; he did a fair number of 13-stars, unfortunately heavily tagged. He did little with the rhomboid, and even less with the pentagon. Among the more exotic shapes, his hourglass (words read horizontally and sloping southeast) contains two 21-letter phrases, CISTERNA INTERCRURALIS and ANTERIOR NASAL ARTERIES, which are, I believe, the longest ones ever incorporated in a form.

C A S T A N H A N U T S
 I N T E R D E B A T E
 S T E R E O B A T E
 T E R R A L I N E
 E R E A R I N G
 R I O L I T E
 N O M I N E
 A R E N G
 I N R E
 N A S
 T S
 B E A
 F I R L
 C E C C A
 C A T A R R
 C A R T R U T
 C E L A M I R E
 P A R A V A N A R
 N A M A S A G A L I
 W A D I T E L E T I E
 H O P E L E S S N E S S

When a member of the National Puzzlers' League managed to build a form incorporating two related words, such as a half-square containing both JUDAS ISCARIOT and JESUS CHRIST, it was often cause for remark by the Enigma editor. However, Palmer Peterson did this almost habitually, often in sets based on a single theme. In one of his earliest sets, two antelope-words formed the bottom two lines of each pyramid: ANTELOPE/GANTELOPES, CANTELOPE/OX ANTELOPES, OX ANTELOPE/TRIANTELOPES, TRIANTELOPE/PIED ANTELOPES, ROAN ANTELOPE/SABLE ANTELOPES, WATER ANTELOPE/BAKER'S ANTELOPES, INDIAN ANTELOPE/PRAIRIE ANTELOPES, and CHINESE ANTELOPE/GOITERED ANTELOPES. Because the antelopes are not offset, he had to incorporate eight words ending in doubled letters into each pyramid. A 17-pyramid is no snap to build; one with

two words pre-placed is harder; to incorporate such a strict third condition as terminal double letters would seem impossible. I consider the pyramid below to be one of the greatest forms ever built.

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      L
    S O B
  F E U R S
P A R R I E D
H I E R I S S O S
T U R N I N G T R E E
P R E R A P H A E L I T E
C H I N E S E A N T E L O P E
G O I T E R E D A N T E L O P E S

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Among many other thematic pyramids, two deserve especial mention: a four-state pyramid (previously exhibited in Word Ways), and one on AUSTRIAN WOMAN/MARIE ANTOINETTE. 'Arcanus' wrote of this "What an inspiration was Sherlock Holmes' where it led to such a beautiful and remarkable linking ... I've never seen a finer use of synonymous proper names. Only a true artist would have conceived and executed this".

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      G
    P R A
  C O U B A
M O N T A N A
L O U I S I A N A
C O N N E C T I C U T
M A S S A C H U S E T T S

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      P
    P A C
  M I R E D
P O P I N A C
P I N E S T R A W
W A T E R H E A T E R
A U S T R I A N W O M A N
M A R I E A N T O I N E T T E

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In 1947, Palmer Peterson wrote "About twenty-five years ago Lateo had a 13-diamond built around a 7-square. Since then I have not seen any other forms built around smaller forms, so I tried a few. These are rather small and run largely to -esses and -ing, but they are extremely hard to build and even the easiest road to success is very rocky ... 11-diamonds and 7-squares are a dime a dozen. But double them and you have plenty of trouble."

The 8-square at the right can be successively peeled down to a 6-square, a 4-square, and a 2-square. Palmer Peterson also created concentric forms of other shapes, which (unlike the square) nobody else has done, before or since.

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M A C O M A D A
A M A N A G E S
C A S E L E S S
O N E N E S S E
M A L E T T E S
A G E S T E N S
D E S S E N D E
A S S E S S E D

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One way to expand forms is to construct compound ones: for example, build a normal and inverted pyramid on the same base, and then stick them together into a diamond-shaped form. It is much more challenging to connect pyramids, diamonds and rhomboids along their sloping edges, since this imposes an added constraint to the across-and-down interlocking. Although many compound forms were constructed before 1900, only one other NPL member besides Palmer Peterson produced any in the last fifty years. Unless the boundaries of the component forms are marked, compound forms are hard to read, apparently being meaningless series of letters; however, the sheer size of them is impressive, and they also lend themselves to elaborate shapes much in the spirit of Chinese tangrams.

The armless man below consists of two squares, two rhomboids, and four pyramids. Letters shared by two adjacent forms are connected by hyphens; note that the S at the center is shared by all four pyramids, and the R below it is shared by a pyramid and two rhomboids.

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      A S P A R A M I D
      S T O N E C O L E
      P O P A F A L L S
      A N A C A R D I A
      R E F A N N I N G
      A C A R N A N I A
      M O L D I N E S S
      I L L I N I S S A
      D E S - A - G - A - S A N
          A R E P A
          T E A R Y
          A C L I S
P A R I E T - A - L - L - O B U L E S
U P E L L E T I E R I N E S ' E
R A P I L E E N G I N E S ' I N
P R A M A D I D A T E S ' A N S
L A R A S E N A T O R ' A N C E
E L A R A D E N E R ' E N G E L
J U G G L E D U S ' A L T I R E
A M O R A D O S ' Y L U A N E S
C I N E M A S ' I T A M P A N S
O N I V A L U N E S ' E E R E N
B I T E N A N C R A S ' E I S E
A T E S ' A R T E N T E S ' E S S
E E S ' O R D I C I T I E S ' E S
A S ' U P R E M E N E S S E S ' E
S - E - A - S - I - D - E - R - A - D - I - S - H - E - S
      A O T E A R O A      C A S C A N T A
    A N T I A R I N      N S E N T A R U
  V I A T E C T A      I N D E X I N G
    P O R T U N U S      E U R I S T I C
  B I R L I N U S      B A G T A B L E
    F L O R A N G E      L O O P L I N E
  P O U N A W E A      E N S A I N T S

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