### 6-BY-6 DOUBLE WORD SQUARES

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The November 1975 issue of Word Ways presented a set of 52 7-by-7 word squares that were generated by computer from a list of boldface words from Webster's Collegiate Dictionary (Seventh Edition) plus the appendices of boys' and girls' names. This article reports on the results of a similar computer search for 6-by-6 double word squares.

A double word square is one in which the horizontal words and vertical words are all different from each other. These squares are decidedly more difficult to construct than the corresponding symmetrical squares (i.e., those of the same size). For example, in Language on Vacation (Scribner's, 1965), Dmitri Borgmann cites the double word square to the right as one of the better 6-by-6 double word squares. Although all the words appear in Webster's Second, four (ectene, adiate, pirlite, adance) do not appear in the Collegiate, and two others are derived forms not in boldface there.

This article presents a set of 117 6-by-6 double word squares with the words restricted to the above references. No square draws all 12 of its words from Webster's Pocket Dictionary, answering an open question posed by William Sunners in the November 1972 Word Ways. However, several come very close to doing so, lacking only one word (ratton, a dialect version of "rat", or Avesta, the sacred books of Zoroastrianism).

Several of these word squares occur in clusters which are described separately from the main listing. The most notable cluster has seventeen squares which can be divided into two slightly different groups of 12 and 5 squares, respectively:

| S C H I S + | Replace * with | PA P I T A T A |
| * R * N C E | any of following: | T T P F |
| R A T T O N | | |
| I N T E N + | Replace + with | M T T |
| * I E R C E | any of following: | D D T |
| E A R N E R | | |

Three small are given b

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

The remaining pages. Six of two letter
of 52

A list of

in one word

words with

One described

groups of

S U F I S M
* R * N C E
R A T T O N
I N T E N D
* I * E R C E
* A * N E R

Replace * with
PA PI TA TA TA
any of following:
T T F F P P
ER ER ER ER TN

Three smaller clusters of five, three and two squares, respectively, are given below:

* A S * E R
* U * * L E
U R O P O D
T O R P I D
C R E E S E
H A * * E N

Replace * with
C T C T C T C T G S
any of following:
L C I L C I L N U R T I R T I
R D S T R D S T S T

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

Replace * with
O A A
any of following:
R M R M N T

L A S S O S
E S C A P E
C L O * H E
T O R R I D
O P I A T E
R E A * E R

Replace * with
C T
any of following:
D P

The remaining 90 squares are given in the list on the next three pages. Six of these squares contain an asterisk representing either of two letters (indicated beneath).
HAMATE HEGIRA HOTTER JIGSAW
ISABEL EVADER UREIDE UNLACE
SPORED RESENT MISSIS STANCE
PIRATE ENSATE POTATO TEDDED
IRIDES TEEFEEL ELINOR UNLADEN
DESSERT ORRERY DESERT STYLER
KIRSCH LEAVES LEPTUS MISSUS
INHERE EXTERN ESSENE ORPINE
SHINNER DHRAMA SCOTIA REIVER
MANNED GAMBIR SARCASC UNLIVE
ELOISE ELAINE OPIATE LITTEN
TESTER RENDER REDDER ACHENE
NEWISH OMAHAS PARAPHRAPH PARAPHRAPH
URANIA MILIEU ACAAAC AVULSE
TRIVET ASTERN SCIENT REDDER
LATENT SHAMAN SESTET INDUSM
ETERNE UNIATE IDEATE AGENDA
TARTAR MACLED MEDLAR HERSON
PASSIM PATTERN PELOPS PHASIC
ORIODE EQUATE ORACLE LACUNA
TEUSER TUSCHE TARTAN AMENDS
AORTAL RICTAL ASKANT NUTLET
SLEETY ELAINE TEENER ELAINE
HERREN LANCER ORRERY TILTER
POSADA PRIMAL RABATO RACISM
TROGON RECIPE ELOPER APOGEE
OOLONG OTITIS SULLEN PENNIA
SIGNAL SECRET OEINE IRVING
IDEATE ENLACE RATTER SCOTER
SELLER REELER BRIERY TUYERE
RACISM RADULA RAFTER RAGMAN
EVINCE OSIRIS ILLITE EMEUTE
PERSON ASSESS CLOTHES CENTRA
ASCENT MUTATE HERBAL ALTAIR
STUCCO ERASER ELAINE LIANAL
TASTER RELENT NESTER LASTLY
REBATO ASPIRE RECAST AGMAN
URETER SERMON EVENER ABLATE
BATTEN TRIPOD SANDRA SLOTHS
ASTUTE REMAKE ODORED SESTET
TEENER ANURIA RETENE ESSENE
ORRERY * ESTER BREWER STAYER

* = L, Y
* = B, G
SABLES
CREESH
ORNATE
TINNER
LOAVES
RENDER
EVENLY
REELER
TREATY
RETTLE

SAMBAR
TROUPE
ASTRID
TITLED
ENLACE
DEEPEN

SAMBAR
SAMPLER
SCARAB
SCARLETS
BILLION
SIC
EOLIAN
TRINAL
TRACER

SCILLAS
SEABED
SEEDER
SUESSAW
TATTERT

SCILLA
SEABED
SEEDER
SEESAW

SCILLA
SEABED
SEEDER
SEESAW

SLEUTH
SPLINT
STELAR
TAPPET

SLEUTH
SPLINT
STELAR
TAPPET

SLEUTH
SPLINT
STELAR
TAPPET

STATE*
THENCE
ORRERY
DENNED

STATE*
THENCE
ORRERY
DENNED

* = D, R

* = I, U
ADAMIC  BEACON  BEAGLE  BEHALF
TURULA  EXHALE  OXTAIL  UREDIA
TURTLE  SPINET  WHAMMY  GRAVEN
ACETIC  TOMCAT  LAMENT  LAVERN
CHAETA  OSSETE  ELATER  ETHERNE
KERNEL  WEARER  GENERA  RANTER
CADDIS  CAECAL  CAPPERS  CERISE
ORIENT  ADMIRE  ESSENCE  OMENTA
SLEAVE  LABRET  SCYLLA  WEEDEAR
MISSAL  I戈OROT  TELIAL  LUCERN
ONEIDA  PULULE  UNLACE  ETHENE
SELLER  HOISED  STASES  DEODAR
CESTUS  CHASER  CHIRED  CLOVER
UMPRISE  OOLITE  HINDOO  RAVINE
SPIRAL  WRIGHT  RADIUS  OMENTA
PIRATE  MAGNET  OTITIS  NEREID
IRIDIC  ACHENE  MUCOSA  UNLACE
DETECT  NETTED  ASTRAL  STYLER
CRASIS  CUPPER  DADOES  DARREL
RECENT  UNIATE  ARABLE  UREASE
ENCASE  SLOTHS  MERLIN  REMISS
DERMAL  SALINE  MONICA  HOUSES
IGUANA  EDENIC  ELEGIT  ALDINE
TEENER  DETECT  DELETE  MEANER
DISBAR  ECLAIR  ENCAMP  EPHEBE
INTIMA  Rouble  ROOTER  URETER
STATOR  ARNOLD  OVERDO  RICHEN
CENTRE  SPARID  TEREUS  OCTAVE
UNCIAL  ESTATE  INCUSE  PEONES
STEELY  REELED  CAESAR  ARREST
EPHEBI  ESCHAR  FALTER  FISCAL
SAANEN  SLEEVE  ORIOLE  UNTUNE
CRISSES  TERRET  REGION  SCORES
ARRIVE  RATINE  MOULIN  SOLUMB
PEELEI  UVEOUS  ALLEGIE  EMILIE
ELDEST  SESTET  LEARNE  REDDEAR
APLITE  GAFFER  APLITE  GAMMED
URANIA  ARLENE  UREMIA  ARIOSO
TORTES  SPURGE  T*PPER  SCANTY
INVERT  SERIAL  INTERN  SAMIEL
STANCE  ENRAGE  SCONCE  ENISLE
MOL*ER  STYLER  MENDER  RASHLY

* = D, T
* = A, I