NEAR-HETEROGRAMMATIC DOUBLE 5-SQUARES

REX GOOCH

Rex was too ill to complete this article and he asked me to do this for him. He gave me the squares. Whilst he was disappointed that his final contribution to Word Ways could not have been more groundbreaking he hoped that, by demonstrating the limits of these squares, he might save others the task of looking for them. Rex’s work is non-italicised; mine is italicised.

Susan Thorpe

In 2006-176, Ross Eckler stated that a heterogrammatic 5-square is impossible to achieve, referring I believe to double squares, but without giving a reason. In the May 1979 Colloquy (following an earlier effort in February 1978), Jeff Grant had presented a double 5-square with 22 different letters, all ten words being in the Oxford English Dictionary (OED):

<table>
<thead>
<tr>
<th>W</th>
<th>H</th>
<th>I</th>
<th>C</th>
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<tbody>
<tr>
<td>R</td>
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<td>A</td>
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- W I C K to squeak, like a pig
- ROBYN 14th-15th century spelling of ‘robin’
- AIVE a-five – in five parts
- MUZED past tense of ‘muze’, an early form of ‘muse’
- PLATS plans or diagrams
- WRAMP a twist or strain
- HOFUL an old word meaning ‘careful’
- IBIZA a breed of dog found on Ibiza
- CVYET 17th century spelling of ‘civet’
- KNEDS an early dialectic form of ‘kneads’

I have tried to fill in the gap between 22 and 25, with quality naturally increasing with fewer different letters, as follows:

No squares with 25 different letters.

20 squares with 24 different letters. The 4 selected are those having the most words (3, 3, 5 and 6 respectively) which appear in major dictionaries, especially the OED.

<table>
<thead>
<tr>
<th>B</th>
<th>F</th>
<th>M</th>
<th>P</th>
<th>S</th>
<th>British Federation of Master Printers - OED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>A</td>
<td>R</td>
<td>E</td>
<td>J</td>
<td>populated place in Iran</td>
</tr>
<tr>
<td>Y</td>
<td>U</td>
<td>K</td>
<td>T</td>
<td>O</td>
<td>a hypsographic feature in North Korea</td>
</tr>
<tr>
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<td>OED</td>
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<tr>
<td>H</td>
<td>D</td>
<td>V</td>
<td>I</td>
<td>G</td>
<td>a type of digital video cable - Google</td>
</tr>
</tbody>
</table>

- BZYCH populated place in Russia
- FAULD the working arch of a furnace - OED
- MRKOV populated place in Bosnia-Herzegovina
- PETWI populated place in Ghana
- SJONG lake in Norway
19,619 squares with 23 different letters. I have chosen 6 squares from a selection which Rex sent. In the first square, 8 of the 10 words can be found in the OED. The other 5 squares each have 7 OED words.

ZF K X S T sixth - OED
U W L C H yf ‘each’ a - OED
M O V A R yf ‘mover’ - OED
B N I K A El Bnika is an area in Syria
I D J E F Idjef Melené is a wadi in Algeria
ZUMBcf: ‘zombie’: yf ‘jumby’, a ghost or evil spirit among American and West Indian Blacks - OED
YWONDe: ‘wound’ = past participle of ‘wind’ v. - OED
XLVII an anachronistic form of the Roman Numeral for 47 - OED
SCAKEvf ‘shake’ v - OED.
THRAF old form of ‘thrawe’, a measure of straw, fodder etc. - OED
GW AHN populated place in Liberia
R UDBY a village in North Yorkshire, UK
OLMEC a native American people inhabiting the coast of S. Venezuela & W. Tabasco in 15th-16th centuries - OED
SPIJK Dutch: 'spike', an ear of grain - OED
ZIXTE v(f) 'sixth' - OED
GROSZ a surname - OED
WULPH a surname - OED
ADMIX OED
HBEIT Al Hbejt is a wadi in Saudi Arabia
NYCKE v(f) 'neck' n. - OED
KHV AZ Khvaz Pari is a populated place in Iran
OWN DY wavy - OED
REFIX OED
BLOC S as in American and Soviet blocs - OED
UPGET OED
KORBU populated place in Ethiopia
HWELP v(f) 'whelp' - OED
VNFOG = 'unfog'. In a 1611 citation under 'unmist' v. - OED
ADICE an area in Bosnia-Herzegovina
ZYXST sixth - OED
SCULD a parting - OED
POZER v(f) 'poser', a puzzle - OED
IMBWA populated place in Malawi
JFEIN Umm Jfein are hills in Saudi Arabia
KYGTH v(f) 'kith' n. = knowledge - OED
SPIJK Dutch: 'spike', an ear of grain - OED
COMFY OED
UZBEK one of the Turkic people of Turkestan - OED
LEWIT v(f) 'lewd' - OED
DRANH the name of a stream in Cambodia
SKWEZ plural of 'scu', a shadow or screen - OED
TUNGDI in a 1758 citation under 'tongued' - OED
AVCHI populated place in Tajikistan
POLAB a member of a Slavonic people once inhabiting the region around the lower Elbe - OED
FREMY a surname - OED
STAPF a surname - OED
KUVOR populated place in Nigeria
WNCLE v(f) 'uncle' - OED
EGHAM a town in Surrey, UK - OED
ZDIBY populated place in Czechoslovakia
SZPAK a surname - Google
WORMY attacked, gnawed or bored by worms or grubs; worm-eaten - OED
EBING a surname - OED
JUDIT a girl's first name - OED
FLECH v(f) 'fleech', meaning flattery - OED
SWEIF As Swief is the name of a wadi in Saudi Arabia
ZOBUL Rio Zobul Ueni is the name of a stream in Ethiopia
PRIDE OED
AMNIC of; or pertaining to; an amnion - OED
KYGTH v(f) 'kite' - OED