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 ground-breaking 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):

W H I C K to squeak, like a pig
R O B Y N 14th-15th century spelling of ‘robin’
A F I V E a-five – in five parts
M U Z E D past tense of ‘muze’, an early form of ‘muse’
P L A T S plans or diagrams
    WRAMP a twist or strain
    HOFUL an old word meaning ‘careful’
    IBIZA a breed of dog found on Ibiza
    CYVET 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.

B F M P S British Federation of Master Printers - OED
Z A R E J populated place in Iran
Y U K T O a hypsographic feature in North Korea
C L O W N OED
H D V I G a type of digital video cable - Google
    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.
GWAHN populated place in Liberia
RUDBY a village in North Yorkshire, UK
OLME 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 'sixth' - OED
GROSZ a surname - OED
WULPI a surname - OED
ADMIX OED
HBEJT Al Hbejt is a wadi in Saudi Arabia
NYCKE 'neck' n. - OED
KHVAZ Khvaz Pari is a populated place in Iran
OWNDY wavy - OED
REFIX OED
BLOCS as in American and Soviet blocs - OED
UPGET OED
KORBUX populated place in Ethiopia
HWELP '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 'poser', a puzzle - OED
IMBWA populated place in Malawi
JEFIN Umm Jfein are hills in Saudi Arabia
KYGTH 'kith' n. = knowledge - OED
SPIJK Dutch: 'spike', an ear of grain - OED
COMFY OED
UZBEG one of the Turkic people of Turkestan - OED
LEWIT 'lewid' - OED
GRAN the name of a stream in Cambodia
SKWEZ plural of 'scu', a shadow or screen - OED
TUNGD 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
STAP a surname - OED
KUVOX populated place in Nigeria
WNCLE '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 'fleech', meaning flattery - OED
SWEIF As Sweif is the name of a wadi in Saudi Arabia
ZOBUL Rio Zobul Uens is the name of a stream in Ethiopia
PRIDE OED
AMNIC of, or pertaining to, an amnion - OED
KYGTH 'kite' - OED