STRANGE WORDS – AND BEYOND

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In the August 2016 Colloquy, Jason Strange referred to the idea of a word, such as CAMPER, which contains one instance of each of the letters CAR, MAP and AREA. Of course, the problem could be viewed the other way round — what words can be found using some or all of the letters of CAMPER, including repeated instances of letters? When the problem is stated this way, hundreds, if not thousands of words, can stand alongside CAP, MAP and AREA. For example, there’s CARAPACE, PAMPERER, PEPPERER, REAPPEAR, CRAMMER, CREAMER, PAPERER and PREPARE, as well as many shorter words.

Perhaps a more interesting problem is to find the shortest word from which each of CAP, MAP and AREA can be spelled out individually. In this case, the solution would need to contain the two As of AREA. CAMPER fails to satisfy this requirement. The shortest word that does satisfy the requirement is PARACME.

Further generalising the problem, one could put together any pair or larger group of words, and seek the shortest word from which each of the initial words can be spelled out individually — and this may allow the inclusion of letters not included in the initial words. For example, WORD and WAYS can both be spelled out from DOORWAYS, as well as ROADWAYS. More examples: WHITE and HOUSE can both be spelled out from OUTWEIGHS (see how the G doesn’t appear in either WHITE or HOUSE); UNITED and STATES can both be spelled out from DISATTUNES; and PRESIDENTIAL and ELECTION can both be spelled from PERIDENTOCLASIA.

Of course, the selection of a pair of words - as above - is somewhat random. An extension of the problem is to select the names of well-known people, and then search for the shortest word from which their first and last names can be spelled out — again allowing for additional letters not included in the initial names chosen. Here are a dozen examples, but I’m sure Word Ways readers can find plenty of others:
<table>
<thead>
<tr>
<th>BARACK</th>
<th>OBAMA</th>
<th>BLACKAMOOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICHELLE</td>
<td>OBAMA</td>
<td>CHLAMYDOBACTERIALES</td>
</tr>
<tr>
<td>HILLARY</td>
<td>CLINTON</td>
<td>HYALINOCRYSTALLINE</td>
</tr>
<tr>
<td>JAMES</td>
<td>MADISON</td>
<td>JASMINEWOOD</td>
</tr>
<tr>
<td>RONALD</td>
<td>REAGAN</td>
<td>ORGANOLEAD</td>
</tr>
<tr>
<td>THEODORE</td>
<td>ROOSEVELT</td>
<td>VIOLET-SHROUDED</td>
</tr>
<tr>
<td>BING</td>
<td>CROSBY</td>
<td>RECOGNISABLY</td>
</tr>
<tr>
<td>ELVIS</td>
<td>PRESLEY</td>
<td>PERVERSIVELY</td>
</tr>
<tr>
<td>FRANK</td>
<td>SINATRA</td>
<td>BREAKFASTING</td>
</tr>
<tr>
<td>CHARLES</td>
<td>DICKENS</td>
<td>STICKHANDLER</td>
</tr>
<tr>
<td>MARK</td>
<td>TWAIN</td>
<td>TWINEMAKER</td>
</tr>
<tr>
<td>WALT</td>
<td>WHITMAN</td>
<td>LAWRIGHTMAN</td>
</tr>
</tbody>
</table>

And here are some examples of three-part terms:

<table>
<thead>
<tr>
<th>MATTER</th>
<th>OF</th>
<th>FACT</th>
<th>MOTHERCRAFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>WHITE</td>
<td>BLUE</td>
<td>UNWITHDRAWABLE</td>
</tr>
<tr>
<td>STARS</td>
<td>AND</td>
<td>STRIPES</td>
<td>DISPERSANT</td>
</tr>
<tr>
<td>PETER</td>
<td>PAUL</td>
<td>MARY</td>
<td>PREMATURELY</td>
</tr>
<tr>
<td>TIM</td>
<td>BERNERS</td>
<td>LEE</td>
<td>IMPERTRANSIBLE</td>
</tr>
</tbody>
</table>

Over to you!

(Note: Words above are in Webster’s Third. Exceptions are: DISATTUNES, IMPERTRANSIBLE, LAWRIGHTMAN, ORGANOLEAD, PERIDENTOCLASIA, TWINEMAKER, UNWITHDRAWABLE, and VIOLET-SHROUDED – all in Webster’s Second Edition; and STICKHANDLER - in Merriam-Webster’s Collegiate Dictionary, 11th edition)