It is exactly five years ago since "Ars Magna: The Ten-Square" appeared in *Word Ways*. This article exhibited several different kinds of regular 10-by-10 word square, including three variant "near-miss" efforts, one of which is shown below.

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MISSATICAL
ISOEMETINE
SOLSPRINGS
SESTUNNELS
AMPUTIEREN
TERNITRATE
ITINERATES
CINERATORS
ANGLETERRE
LESSNESSES
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The flaws in this square are the expressions SES TUNNELS, a French phrase, and AMPUTIEREN, a German verb. Ideally, the use of foreign terms should be avoided when constructing an English word square. I have no qualms, however, about accepting the plural name SOL SPRINGS, either in the sense of more than one person named Sol Spring (two Sol Springs), or when referring to "the Sol Springs of the world". The other words used are all of impeccable quality.

The 1985 article evoked a positive response, and, as hoped, re-awakened interest in one of the great unconquered logological challenges. The ten-square has eluded all great formists of the past century; in fact, most never even attempted it. So what chance have we today? At least there are a few more words in the language ... and computers!

Not everyone approves of computers in wordplay, or anywhere for that matter, but like it or not they are here to stay and we must acknowledge their contribution. For some time now I have been corresponding with G. Hardy Ropes ("Ajax" in the National Puzzlers' League), exchanging ideas and information on ten-squares. Recently, we have had the assistance of Eric Albert, who set his computer to work producing likely sets of three ten-letter base-words. A square using one of Eric's computer-generated base-sets is shown in Ajax's "Further Struggles With a Ten-Square" in the February 1990 *Word Ways*. I also experimented with this particular base, and the square on the next page was my best effort.
DORA ASCHER  the surname Ascher is not too uncommon, but I have been unable to locate one named Dora, Nora, Cora or Lora. Can anyone help?

OPEN NERINE  a nerine bloom with its petals spread, by analogy with open flowers, which appears in an OED citation.

REENTRANTS  persons or things that reenter or return (RHD).

ANN AIRPORT  the full name of the airport that may theoretically serve the Swedish community of Ann, which is shown in TAW.

ANTI-NAPIER  holding views contrary to someone called Napier; for example the opponents of 19th-century Irish political leader Sir Joseph Napier could be described as anti-Napier.

SERRANIDAE  a large and widespread family of carnivorous perch-like fishes (Web 2).

CRAPPINESS  the state of something cheaply made or done; shoddiness (RHD).

HINOIDEOUS  having the secondary veins all parallel and at right angles to the midrib, as the banana leaf (Web 2).

ENTREASURE  to store in or as in a treasury (OED).

There are four unverified terms in this square. It may well be possible to track down a DORA ASCHER (Cora, Nora, or Lora would do), there could be an ANN AIRPORT, and the expression ANTI-NAPIER may have been used at some time, but it is most unlikely that OPEN NERINE will ever be found.

Leaving the computer-produced bases, let's have a look at a ten-square I devised not long after the "Ars Magna" article. Like the previous example, it makes use of people's names, and further extends this concept to trade and street names.

INCAPABLE
NEALEDRIVE
CARLGRAVES
ALLPRESENT
PEGRENSLER
ADRENALINE
BRASSLINES
LIVENESS
EVENENESS
RESTRESSED
INCAPABLE, more incapable, an awkward comparative form, by analogy with intolérablest, adviseable, notabler, indisputablest, serviceable and imperturbablest, all of which appear in The French Revolution, by Scottish historian Thomas Carlyle, originally published in 1837.

NEALE DRIVE: a street in Santa Rosa, California (ZIP: 95401).

CARL GRAVES: an individual listed in the September 1989 Philadelphia telephone directory.

ALL-PRESENT: an undefined term in Web 2; perhaps an all-present situation where the persons concerned are "all present" and accounted for.

PEG RENSLER: a fictitious name, or is it? The surnames Ransler, Rensler and Rinsler are all rare, and despite extensive efforts I have been unable to find one with the first name Peg.

ADRENALINE: a hormone secreted by the adrenal glands and affecting circulation, muscular action, etc. (OED).

BRASSLINES: a line of brass desk accessories made by the New York firm of A & M Leatherlines (TND).

LIVELINESS: the quality of being lively; activity, animation, vivacity (OED).

EVENENESSE: a presumed early scribal variant of evenness, based on the 15th-century spellings evennesse and euennesse shown in OED citations. The dictionary states that U and V were practically interchangeable in Middle English.

RESTRESSED: see previous square.

A variation is possible using UNEATABLER, EARL DRAKES (people named Earl Drake, who do exist), and TED RENSLER (Ransler or Rinsler).

These squares are much more satisfactory than the DORA ASCHER one, but even if a PEG (or Ted) RENSLER (Ransler or Rinsler) came to light, I would still feel uneasy about EVENENESSE, and to a lesser extent INCAPABLE and UNEATABLER.

So what sort of terms should be permitted in a ten-square? There are no hard-and-fast rules on acceptability, and formists' standards naturally vary. For what it is worth, here are some of the things my constructor's conscience tells me to disallow:

- contrived words, names and phrases (anti-Napier, Peg Rensler)
- initials and apostrophes (Bessonne L's, Jas. J. Ascher)
- foreign expressions (ses tunnels, amputieren)

In addition, I try to steer clear of uncomfortable inferred terms like INCAPABLE and EVENENESSE wherever possible.

Onward and upward! About three years ago I discovered a set of base words superior to any of my previous ones. Excitedly I set about trying to find the terms to fill in the rest of the square. Dictionaries were pored over, telephone directories scoured, and letters written to various far-flung outposts in a frantic effort to pull off the coup. As time passed a familiar pattern emerged. Seemingly-logical words just didn't exist, promising names couldn't be found, and people failed to answer my letters (were they suspicious, confused or just not interested?). Several times I came
within a single term of finding a solution, but was always frustrated within sight of victory. Gradually, as every avenue was explored and found to be a dead end, the enthusiasm waned and I became involved with other projects.

The ten-square was never far from my mind, though, so you can imagine the feeling of elation when a letter arrived out of the blue from a person I had been trying to contact for over a year, providing the information I needed to finally achieve success!

I certainly don’t expect this last square to satisfy everyone, because, as I have said, standards differ. Maybe one day a 10-by-10 will be discovered using only dictionary words, but somehow I doubt it. The following square is not perfect; however, all ten terms used adhere to my own personal criteria for acceptability. It is the culmination of almost twenty years in search of the ten-square.

ASTRALISED
SCHOLARITY
THYLACINES
ROLYNADERS
ALANBROWNE
LACAROLINA
IRIDOLINES
SINEWINESSE
ETERNESSE
DYSSEASSES

ASTRALISED past tense of the verb astralise, a chiefly British variant of astralize, to interpret myth as of a significance related to the stars, for example:
"... philologists who solarize and astralize because the model was once set before them" (MAR, Vol 11, page 7)
"... Anahid, the planet Venus in astralized Iranian myth"
(CM, page 104)
Most authorities consider the verbal suffixes -ise and -ize to be interchangeable in nearly all cases; Web 3 states "In U.S. use the suffix is nearly always spelt -ize, even in words from French, in which the spelling is -iser. In Britain, however, many not only retain S in borrowings from French but use S instead of Z in borrowings from Greek and Latin and in English formations." The OED Word and Language Service confirms that "all verbs ending in -ize can have the form -ise in British English - astralise would be acceptable."

SCHOLARITY schooling, instruction, training; an obsolete word (F&W). The OED records a citation from The Universities of Europe in the Middle Ages, by Hastings Rashdall, published in 1895:
"The certificate of scholarity was to be refused if the applicant's Latinity proved unequal to the strain."

THYLACINES Tasmanian wolves, carnivorous marsupials formerly common in Australia, but now limited to the remoter parts of Tasmania (Web 3).

ROLYNADERS persons such as Roly Nader, a resident of Houston, Texas. Listed in the 1988/89 Houston telephone directory under
his full name of Roland Scott Nader, this gentleman has confirmed in writing that he is sometimes called "Roly" by friends and relatives. Are there any other Roly Naders out there? If so, I haven't been able to track them down, but then the Roly Naders of the world have a much lower profile than, say, the Ralph Naders.

ALAN BROWNE a common name found in many telephone directories throughout the world. There are seven men called Alan Browne on the New Zealand Electoral Rolls (2.3 million people), which indicates there could be around 700 in the United States. The most well-known Alan Browne is probably the American bank consultant born in 1909 (WWA).

LA CAROLINA a commune on the southern slopes of the Sierra Morena mountain range in Spain. 32 miles north of Jaen. First settled by Swabian colonists in 1769, La Carolina trades in minerals, oil and wine (WNGD).

IRIDOLINES plural of iridoline, an oily liquid compound derived from coal-tar (F&W). It has the molecular formula $C_{10}H_{9}N$, the same as its isomer lepidine, the plural of which is shown in Web 3. Although no dictionary specifically lists iridolines, the Physical Sciences editor at Merriam-Webster states that a plural form is possible, a view supported by Dr. Trevor Kitson of the Department of Chemistry and Biochemistry at Massey University.

SINEWINESS the state or quality of being sinewy; firm strength, toughness (Web 3).

ETERNNINESSE variant of eternness, a rare and obsolete synonym for eternity. For example:

"What impossible mixtures? vice and vertue, corruption and eternnesse" (OED, 1608 quotation)

DYSSEASSES plural of dysseasse, a 16th-century spelling of the noun disease (OED).

REFERENCES

CM Comparative Mythology, J. Puhvel, 1987
MAR Mythology of All Races, a 13-volume work, each volume written by a different author, published 1920
Web 3 Webster's 3rd New International Dictionary, 1976
WNGD Webster's New Geographical Dictionary, 1972