

Large Word Squares in Latin

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Abstract: Large word squares have been pursued in many languages, but large word squares in Latin appear to have remained unexplored, despite the form's origins in ancient Rome and despite the benefits offered by Latin inflectional endings. New word squares constructed in Latin are shown to surpass in size those created in other languages to date, most notably by attaining the holy grail of logology: the first known non-tautonymic ten-squares consisting entirely of solid, uncapitalized words in a single language. Additional results, also consisting entirely of solid, uncapitalized Latin words, include double eight-squares, a double nine-square, and eleven-squares.

Word squares date back to ancient Rome, and two examples—the famous SATOR square and the less famous but equally palindromic ROMA-OLIM-MILO-AMOR square—have been found in several sites from classical antiquity, including the ruins of Pompeii. In modern times, large word squares have been pursued in numerous languages from Spanish to Icelandic to Esperanto, as well as multilingual squares, but despite the form's Roman origins there appear to have been no attempts at constructing large squares in Latin.

In considering this strangely neglected topic, one should begin by noting a key advantage of Latin, namely its extensive and overwhelmingly regular system of inflectional endings. Construction of large word squares has customarily begun by placing the bottom words first with the goal of creating letter combinations that end many words, such as -ING or -ESS in English. In Latin, if the words in the bottom rows combine to produce nothing but common inflectional endings, such as -NTUR or -ATIS, there is good reason to hope the remainder of the square may be filled. Of course, other languages such as French and Spanish have highly inflected verbs as well.

Latin's inflectional endings also mean that nearly all Latin words of eight letters or longer end in the letters S, M, R, E, I, T, A, O, X, or U. The next most frequent final letter is N, which often ends words of Greek origin, but even this reflects a sharp drop from X and U. The final word in any large Latin word square is therefore likely to consist entirely of these ten ending-friendly letters, an observation that greatly refines the set of potential starting points for constructors.

Due to these structural benefits and the historical appeal of bringing the word square back to its roots, I have sought to push the boundaries of large word squares in Latin using only solid, uncapitalized words.

The largest double word squares to date have been double eight-squares, but we are not aware of any that consist entirely of uncapitalized words. The finest one constructed in English is generally agreed to be Jeff Grant's TRATTLED-THAMNATA square ("Double Word Squares," *Word Ways*, February 1992), which contains only two capitalized words. As he noted at the time, this was an improvement on the work of Palmer C. Peterson, a prolific formist who constructed at least 250 double eight-squares but never found one that came so close to the uncapitalized ideal.

In Latin, I have been able to meet this ideal by constructing the following double eight-squares, each of which consists entirely of uncapitalized words. For additional elegance, the 32 words in these two

squares can all be found in a single dictionary, namely Hederich (see references at end of article).

EMERCARI	EFFLETOS
NIVEORUM	GELATOTE
ONOSMATI	ENATURIS
DELAMBAT	SEMENTAS
ARANEATA	SOMNIATO
RARANTUR	ERADAMUR
EVENTURI	RURATURI
SISTARIS	OMISERIS

The words in the grid are explained below. Verb forms are active and indicative unless stated otherwise, and some word forms have multiple meanings beyond those given; for example, EVENTURI could also be masculine genitive singular or neuter genitive singular. The English definitions are sometimes translated from Hederich and sometimes taken from other sources.

First square:

EMERCARI is the infinitive of the deponent verb *emercor* meaning “buy.”

NIVEORUM is the masculine genitive plural form of the adjective *niveus* meaning “snowy.”

ONOSMATI is the dative singular of the noun *onosma*, a flowering plant of the forget-me-not family.

DELAMBAT is the third person singular present subjunctive form of the verb *delambo* meaning “lick.”

ARANEATA is the feminine nominative singular of the perfect participle of the verb *araneo*, which means “be full of cobwebs.”

RARANTUR is the third person plural present passive form of *raro*, a verb meaning “refine” or “make rare.”

EVENTURI is the masculine nominative plural of the future participle of the verb *evenio* meaning “come to pass.”

SISTARIS is the second person singular present passive subjunctive form of the verb *sisto*, which means “place” or “cause to stand.”

ENODARES is the second person singular imperfect active subjunctive form of the verb *enodo* meaning “untie” or “free from knots.”

MINERAVI is the first person singular perfect active form of the verb *minero* meaning “mine (for metal).”

EVOLARES is the second person singular imperfect active subjunctive form of the verb *evolo* meaning “fly out or away.”

RESANANT is the third person plural present active form of the verb *resano* meaning “heal again.”

COMMENTA is the feminine nominative singular of the perfect participle of the deponent verb *comminiscor*, which means “invent” or “contrive.”

ARABATUR is the third person singular imperfect passive form of the verb *aro* meaning “plow.”

RUTATURI is the masculine nominative plural of the the future participle of the verb *ruto* meaning “dig up.”

IMITARIS is the second person singular present form of the deponent verb *imitor* meaning “imitate.”

Second square:

EFFLETOS is the masculine accusative plural of the perfect participle of the verb *effleo* meaning “exhale.”

GELATOTE is the second person plural future imperative of the verb *gelo* meaning “freeze.”

ENATURIS is the ablative plural of the future participle of the deponent verb *enascor* meaning “be born from” or “exit.”

SEMENTAS is the second person singular present form of the verb *semento* meaning “bear seed.”

SOMNIATO is the masculine ablative singular of the perfect participle of the verb *somnio* meaning “dream.”

ERADAMUR is the first person plural present passive subjunctive form of the verb *erado* meaning “scrape off” or “obliterate.”

RURATURI is the masculine nominative plural of the the future participle of the verb *ruro* (or its deponent twin *ruror*) meaning “live in the country.”

OMISERIS is the second person singular perfect active subjunctive form of *omitto*, a verb meaning “dismiss” or “omit.”

EGESSERO is the first person singular future perfect form of the verb *egero* meaning “bring out.”

FENEORUM is the masculine genitive plural of the adjective *feneus*, which means “of hay.”

FLAMMARI is the passive infinitive of the verb *flammo* meaning “enflame.”

LATENDAS is the feminine accusative plural form of the gerundive of the verb *lateo*, which means “hide.” This verb is usually intransitive, but the *Oxford Latin Dictionary* (OLD) and Lewis & Short both confirm this verb can also be transitive.

ETUNIATE is the second person plural present imperative of the verb *etunio*, meaning “discharge liability.” If not for this word, every word in the second square would be found in Gaffiot as well as in Hederich.

TORTAMUR is the first person plural present passive form of *torto*, a verb meaning “torture.”

OTIATURI is the masculine nominative plural form of the future participle of the deponent verb *otior*, meaning “be at leisure.”

SESSORIS is the genitive singular of the noun *essor*, meaning “one who sits.”

Anagram aficionados may have noticed a bond linking these two squares: ONOSMATI in the first square is a transposal of SOMNIATO in the second.

These two squares illustrate a general trend among large Latin word squares, namely the preponderance of verb forms. One reason is that a given verb generates dozens of distinct forms, more than adjectives and far more than nouns. The other reason is that verbs’ inflectional endings tend to be longer; many verb endings are four letters or longer (-ARIS, -ABATUR, -ENTUR, etc.), while only three inflectional endings for nouns are four letters long (-ORUM, -ARUM, -IBUS). A construction approach based on maximizing the collective frequency of final trigrams or tetragrams will therefore naturally draw upon a large number of verb forms.

There does not appear to be a published double nine-square consisting of solid dictionary words in any single language, whether uncapitalized or not, though Jeff Grant’s tongue-in-cheek “A Word Square of the Future” (*Word Ways*, May 1992) sought this goal in English by introducing five coined words. Another step toward this goal occurred in French with Jean-Charles Meyrignac’s 9x8 word rectangle, as reported by A. Ross Eckler and Faith W. Eckler (“A Near-Perfect French 9-by-8 Word Rectangle,” *Word Ways*, November 2007). The dream of a double nine-square remained unfulfilled, however, and it was estimated that one would be as difficult to construct as a traditional ten-square.

Once again, Latin is up to the task. The following 9x9 double word square consists entirely of solid, uncapitalized Latin words. As a bonus, it comes close to being a single-source square because

seventeen of its words can be found in Hederich; the sole exception, DERUPEREM, can be found in Lewis & Short.

ADAMPLIAS
DEMIRANDO
PRISANTUR
LUCESCENT
OPERIENDI
SEMINATAE
URITABANT
RENATANTI
AMISISTIS

ADAMPLIAS is the second person singular present form of *adamplio*, a verb meaning “enlarge.”

DEMIRANDO is the neuter ablative singular form of the gerundive of the deponent verb *demiror*, meaning “wonder at.”

PRISANTUR is the third person plural present passive subjunctive form of *priso*, meaning “seize.”

LUCESCENT is the third person plural future form of the verb *lucresco*, meaning “start to shine.”

OPERIENDI is the genitive form of the gerund of the verb *operio*, which means “cover.”

SEMINATAE is the feminine nominative plural form of the perfect participle of *semino*, meaning “sow.”

URITABANT is the third person plural imperfect form of *urito*, a frequentative verb for “burn a lot.”

RENATANTI is the dative singular of the present participle of the verb *renato*, “swim back.”

AMISISTIS is the second person plural perfect form of *amitto*, meaning “send away.”

ADPLOSURA is the feminine nominative singular of the future participle of *adplodo*, meaning “strike against” or “applaud.”

DERUPEREM is the first person singular imperfect subjunctive of *derupio*, which means “tear away.”

Lewis & Short cross-references *derupio* to *deripio*, and the latter does appear in Hederich.

AMICEMINI is the second person plural present passive subjunctive form of *amico*, meaning “render favorable” or “make friendly to oneself.”

MISERITAS can be a rare noun meaning “misery,” but in Hederich it is the feminine accusative plural form of the perfect participle of the deponent verb *misereor*, meaning “have pity.”

PRASINATI is the masculine nominative plural of the adjective *prasinatus*, meaning “dressed in green.”

LANCEABAS is the second person singular imperfect form of *lanceo*, which means “wield a lance.”

INTENTANT is the third person plural present form of the verb *intento*, meaning “direct against.”

ADUNDANTI is the dative singular of the present participle of *adundo*, a verb meaning “be abundant.”

SORTIETIS is the second person plural future form of the verb *sortio*, meaning “draw lots.”

The next step is the holy grail of logology: the perfect ten-square. For more than a century, formists have sought to produce a non-tautonymic 10x10 word square consisting of solid, uncapitalized words in a single language, but no such solution has been found. Most prolifically, the late Rex Gooch generated hundreds of computer-generated ten-squares, leaning heavily on proper names. His DESCENDANT square (“Some Superior Ten-Squares,” *Word Ways*, November 2002) is generally considered the best English-language ten-square to date, but even this square contains two capitalized place names, two taxonomic names (one of which is capitalized), and one hyphenated word. Attempts in other languages have likewise approached the goal, such as the French REMEURTRIE square by Michel Laclos; published in his book *Jeux de lettres, jeux de l’esprit* in 1977, that square appears to consist of seven dictionary words, one plausibly coined variant, one less plausibly coined phrase, and one non-word. As

far as I can determine, the most nearly perfect solution in any language to date has been the RASKAKKERS square in Dutch, constructed by Bob Lucassen and posted to his blog Unnecessarily Complicated in 2017; it consists of nine solid, uncapitalized words and one proper name, a pluralized demonym.

In Latin, the holy grail can finally be attained with the following ten-square, which consists entirely of solid, uncapitalized words found in major dictionaries:

DECOCTRICI
EXOBRUERAM
CONDURAREM
OBDUCIMINI
CRUCIFIGIS
TURIFICATI
REAMICABAS
IRRIGABANT
CAENITANTI
IMMISISTIS

DECOCTRICI is the dative singular form of *decoctrix*, the feminine word for “spendthrift,” found in Hederich.

EXOBRUERAM is the first person singular pluperfect form of the verb *exobruo*, which means “dig out” or “disengage” and appears in Hederich.

CONDURAREM is the first person singular imperfect subjunctive form of *conduro*, which means “make hard” and is found in Hederich.

OBDUCIMINI is the second person plural present passive form of the verb *obduco*, meaning “lead towards” or “cover over” and found in Hederich.

CRUCIFIGIS is the second person singular present form of the verb *crucifigo*, which means “crucify” and appears in Hederich.

TURIFICATI is the nominative plural of the noun *turificatus*, found in Hederich and meaning “one who offers incense (to the gods).”

REAMICABAS is the second person singular imperfect form of the verb *reamico*, meaning “love in return.” This word is found in the *Thesaurus Linguae Latinae* (TLL), whose R volume is currently being published in fascicles and is therefore not yet available in the digital edition; a copy of the fascicle containing *reamico* is available in the reference collection at the Library of Congress.

IRRIGABANT is the third person plural future form of the verb *irrigo*, meaning “irrigate” and found in Hederich. The imperfect form IRRIGABANT would fit just as well, but IRRIGABANT was chosen because the square did not include any other verbs in the future tense.

CAENITANTI is the dative singular form of the present participle of the verb *caenito*, which means “dine often” and found in Georges.

IMMISISTIS is the second person plural perfect form of the verb *immitto*, meaning “send into” and appearing in Hederich.

The words in this square are more familiar than the brief summaries above might suggest. The verbs *obduco*, *conduro*, *irrigo*, and *immitto* are so common as to appear in even the most abridged of dictionaries, and *crucifigo* is commonplace as well; encountering such everyday words in a large word square is a pleasant surprise, like finding EXISTENCE in Eric Albert’s nine-square. Even the three

least common dictionary entries would be readily recognizable from other sources. *Decoctrrix*, which is also an entry in Hoven, is formed as the feminine agent noun from the verb *decoquo*, which appears in nearly every dictionary. The verb *reamico* is the common prefix *re-* combined with *amico*, a verb that appears in most dictionaries and was used above in the double nine-square. Likewise, nearly every dictionary contains *cenito* or *coenito*, the more common spellings of *caenito*, and some dictionaries accommodate this spelling variance with a categorical cross-reference such as “*caen-*: see *cen-*.”

The above ten-square can be covered by three sources: eight words in Hederich and one each in Georges and TLL. Although I have not yet found a single-source ten-square, the next square comes extremely close because the first nine words appear in Hederich, while the tenth word appears in Hederich only as *strito* rather than the needed *stritto*. This is particularly heartbreaking because the spelling *stritto* is more common, appearing in Gaffiot, Lewis & Short, and OLD, for example. This square is also unusual for consisting entirely of verbs.

FRICABATIS
RENODABINT
INCALLATUR
COADULTURI
ADLUDIABIT
BALLISTANT
ABATATURAE
TITUBARENT
INURINANTI
STRITTERIS

FRICABATIS is the second person plural imperfect form of the verb *frico*, meaning “rub.”

RENODABINT is the third person plural future form of *renodo*, which means “untie.”

INCALLATUR is the third person singular present form of *incallo*, meaning “render callous.”

COADULTURI is the masculine nominative plural of the future participle of *coadolesco*, meaning “grow up with.”

ADLUDIABIT is the third person singular future form of *adludio*, a verb meaning “caress” or “play or frolic (with).”

BALLISTANT is the third person plural present form of the verb *ballisto*, which means “shoot.”

ABATATURAE is the feminine nominative plural form of the future participle of *abato*, which means “beat down” or, in legal contexts, “abate.”

TITUBARENT is the third person plural imperfect subjunctive form of *titubo*, meaning “walk unsteadily, stagger.”

INURINANTI is the dative singular of the present participle of the deponent verb *inurinor*, which means “plunge or dive in.”

STRITTETIS is second person plural present subjunctive form of *stritto*; this verb echoes *titubo* because *stritto* means “be unsteady on one’s feet.”

As referenced in the introduction, I produced these squares by selecting final rows that combined to produce common endings and therefore maximize the chance of completing the rest of the grid. The next four ten-squares, which are unrelated to the two preceding squares but have the same final three rows as each other, show how fecund a single well-chosen combination can be.

DESIDERATA	CAPISTRATA	PROSPIRATA	DEFODRATA
EMUNIRERIS	AZEMPRERIS	REBURNERIS	ESCARIERIS
SUBTREMENS	PERPLACENS	OBIRASCENS	SCATESCENS
INTREMENTI	IMPROBANTI	SURREPENTI	FATISCENTI
DIRIPIATIS	SPLORANTIS	PRAESENTIS	ORESCENTIS
EREMITTANT	TRABATTANT	INSPECTANT	DISCEPTANT
REMEATURAE	RECANTURAE	RECENTURAE	RECENTURAE
ARENTARENT	ARENTARENT	ARENTARENT	ARENTARENT
TINTINANTI	TINTINANTI	TINTINANTI	TINTINANTI
ASSISTETIS	ASSISTETIS	ASSISTETIS	ASSISTETIS

For brevity, the words in these squares are alphabetized with their lemmata and sources given in lieu of full grammatical explanations: ARENTARENT (*arento*, Hederich); ASSISTETIS (*assisto*, Lewis & Short); AZEMPRERIS (*azempro*, Du Cange); CAPISTRATA (*capistro*, Lewis & Short); DEFODRATA (*defoddratus*, Du Cange); DESIDERATA (*desidero*, Lewis & Short); DIRIPIATIS (*diripio*, Lewis & Short); DISCEPTANT (*discepto*, Lewis & Short); EMANABERIS (*emano*, Gaffiot as transitive); EMUNIRERIS (*emunio*, Lewis & Short); EREMITTANT (*eremitto*, Du Cange); ESCARIERIS (*escario*, Du Cange); FATISCENTI (*fatisco*, Lewis & Short); IMPROBANTI (*improbo*, Lewis & Short); INCONCANTI (*inconco*, Du Cange); INTRIMENTI (*intrimentum*, Lewis & Short); INSPECTANT (*inspecto*, Lewis & Short); MARCESCENS (*marcesco*, Lewis & Short); OBIRASCENS (*obirascor*, Lewis & Short); OBSCULTANT (*obsculto*, Du Cange); ORESCENTIS (*oresco*, Gaffiot); PERPLACENS (*perplaceo*, Lewis & Short); PRAESENTIS (*praesens*, Lewis & Short); PROSPIRATA (*prospiro*, Hederich); REBURNERIS (*reburno*, Du Cange); RECANTURAE (*recano*, Hederich); RECENTURAE (*recino*, Hederich); REMEATURAE (*remeo*, Gaffiot); SCATESCENS (*scatesco*, Hederich); SEMIVORATA (*semivoratus*, Ramminger); SPLORANTIS (*sploro*, Du Cange); SUBTREMENS (*subtremo*, Ramminger); SURREPENTI (*surrepo*, Lewis & Short); TINTINANTI (*tintino*, Lewis & Short); TRABATTANT (*trabatto*, Du Cange); VAENEUNTIS (*vaeneo*, Lewis & Short).

The next step is the eleven-square. No one has come close to achieving an 11x11 word square using dictionary words in any language, whether solid and uncapitalized or not, and few have ventured to try. The two eleven-squares published in *Word Ways* were both constructed by Rex Gooch (“The Eleven Square, Take One,” August 2004, and “The Eleven-Square, Take Two,” May 2005), but these two squares collectively contain only one English word. There do not appear to have been any eleven-square attempts in other languages, but Latin stands ready to tackle this challenge:

RESCISSEMUR
EXTENTERARE
STENDERERIS
CENSEREMINI
INDEFINITAM
STERILITARI
SERENITATIS
EREMITARIOS
MARITATIONI
URINATIONEM
RESIMISSIMI

RESCISSEMUR is the first person plural future passive form of the verb *resciso* meaning “discover (something unexpected),” found in Calepino. Although entities being discovered would not typically be people, it would be reasonable to use this verb for learning of unexpected guests at a party, for example. EXTENTERARE is the infinitive of the verb *extentero*, found in Gaffiot and meaning “disembowel.” STENDERERIS is the second person singular imperfect passive subjunctive form of the verb *stendo*, which is an entry in DMLBS; it is defined as an apheretic form of *extendo*, a versatile verb whose primary meaning is “extend” or “stretch out.” The citation in DMLBS uses a passive meaning related to the valuation of land, but in the second person passive it is more reasonable to use a passive meaning found in OLD under *extendo* that refers to people, namely the sense of “lie in death.”

CENSEREMINI is the second person plural imperfect passive subjunctive form of *censeo*, which means “value, esteem” and is found in Hederich.

INDEFINITAM is the feminine accusative singular form of *indefinitus*, an adjective in Hederich meaning “indefinite.” This is the first of four words whose meanings are clear from their English cognates.

STERILITATI is the dative singular of *sterilitas*, a noun in Hederich that means “sterility.”

SERENITATIS is the genitive singular of *serenitas*, which means “serenity” and appears in Hederich. This particular inflected form may be familiar because Mare Serenitatis is one of the most visible features on the Moon.

EREMITARIOS is the masculine accusative plural form of the adjective *eremitarius*, which means “living a hermit’s life” and is found in Niermeyer.

MARITATIONI is the dative singular of *maritatio*, which is found in Hederich and means “wedding” or “marriage.”

URINATIONEM is the accusative singular of *urinatio*, which means “urination” and is found in Ramminger.

RESIMISSIMI is the masculine genitive singular of the superlative form of the adjective *resimus* meaning “turned up” or “bent back,” which typically describes noses and is found in Hederich. The comparative form of this adjective occurs in the works of the 15th-century physician Paolo Giovio, and there is no reason the most turned-up of three noses would not be described by the superlative. The form RESIMISSIMI is appropriately masculine because the usual Latin word for “nose” is masculine.

Using the same final three rows, I have also constructed a second eleven-square, but this second one is less appealing because the words are generally less common, and two of the verbs occur in forms that are grammatically sound but somewhat unlikely to occur in everyday contexts.

SCISSURAMUR

CONTENERARE

INFAMATORIS

STAMINAMINI

SEMILIMATAM

UNANIMITATI

RETAMINATIS

AROMATARIOS

MARITATIONI

URINATIONEM

RESIMISSIMI

SCISSURAMUR is the first person plural present passive form of the verb *scissuro*, meaning “cut (cloth, as to make garments)” and found in DMBLS. Because it is passive, a first person form in the literal sense seems impractical for anything but sentient fabric, but it becomes more natural if the verb is taken figuratively. If the comradely idiom “we are cut from the same cloth” were translated into Latin, it would use this form of the verb: *scissuramur ex eodem panno*.

CONTENERARE is the infinitive of *contenero*, a verb in Du Cange meaning “make tender.”

INFAMATORIS is the genitive singular of the noun *infamator*, found in DMLBS and meaning “slanderer.”

STAMINAMINI is the second person plural present passive form of *stamino*; Hederich defines this verb as “spin (thread),” while Stephanus defines it as “support (a vine) with stakes.” This is the other word form that seems unlikely to arise in everyday use, though admittedly there is nothing to prohibit a human from addressing inanimate objects; for example, a vintner who spent the morning placing stakes to support grapevines might look at the vines with satisfaction and say *nunc staminamini* (“now you are supported by stakes”).

SEMILIMATAM is the feminine accusative singular of the adjective *semilimatus*, found in Hoven and meaning “half-polished.”

UNANIMITATI is the dative singular of the noun *unanimitas*, which means “unanimity” and appears in Lewis & Short.

RETAMINATIS is the second person plural present form of the verb *retamino*, found in de Serres and meaning “befoul, particularly with excrement.” This is a mercifully rare verb.

AROMATARIOS is the accusative plural of the noun *aromatarius*, meaning “dealer in spices” or “apothecary” and found in Lewis & Short.

The last three words are the same as in the previous eleven-square.

Latin-savvy readers may have noticed opportunities to modify the word squares presented above by changing letters or words; such opportunities are numerous because any square is likely to be found in a sweet spot where favorable letter combinations occur. As always, the simplest way to modify a square is to change a single letter on the diagonal of a non-double word square. Using the top rows of the first two ten-squares as examples, DECOCTRICI could be replaced by RECOCTRICI (the dative singular of *recoctrix*, a feminine adjective found in Hoven meaning “able to reenergize” or “able to reforge”), and FRICABATIS could be replaced by TRICABATIS (the second person plural imperfect form of *trico*, defined in DMLBS and Du Cange as “delay”).

Less trivially, some non-diagonal squares can be changed. For example, the first eleven-square could be modified by changing EXTENTERARE to EXTENTERATE (the second person plural present imperative form of the same verb), while URINATIONEM would be changed to UTINATIONEM (the accusative singular of *utinatio*, defined in DMLBS as “wish” or “expression of a wish”). The DECOCTRICI square could include two rare letters, X and J, if its third and fourth words were changed to CONJURAREM (the first person singular imperfect subjunctive form of *conjuro*, meaning “conspire”) and OBJICIMINI (the second person plural present passive form of *objicio*, meaning “throw towards”), both found in Gaffiot.

Even the double word squares are amenable to change. For example, the lower left corner of the double nine-square can be changed to O, or the word AMICEMINI can be replaced by ALITEMINI. For larger modifications, favorable sets of words in the right and bottom positions of a double word square can be retained while words in the upper left quadrant are reworked. As one such challenge, the reader is

invited to modify the EFFLETOS-EGESSERO double eight-square to incorporate an aquatic plant, a precious stone that Pliny believed had magical properties, forms of verbs meaning “make lukewarm” and “live through a year,” and a flexible space that can variously be filled with G, R, or V.

Better still, the reader is encouraged to construct entirely new squares. Latin has been shown to support the construction of word squares and double word squares that are larger than those constructed in other languages to date and that consist entirely of solid, uncapitalized dictionary words. Now that eleven-squares have been constructed, it is reasonable to expect a double ten-square would be possible, and one might even be daring enough to pursue a twelve-square in Latin. To quote the Aeneid, *audentis Fortuna iuvat*: Fortune favors the bold.

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