going <u>classic</u>

One of the first considerations when one ponders duodecimal numeration is how to symbolize the "digits" ten and eleven. Those familiar with the dozenal system know that, since twelve is two

units larger than ten, dozenal will require two additional "transdecimal" symbols. A symbol is needed to convey "ten" and "eleven" as digits in dozenal, just as decimal requires an "8" and a "9" in addition to the set of eight numerals employed by users of octal.

These transdecimal symbols enable the use of dozenal. Along with symbols, one needs names for the symbols in order to refer to them in writing. A convention established by the Dozenal Society of America adopts the names "dek" and "el" for the symbols signifying decimal "ten" and "eleven", respectively. The symbols and their names give us the ability to identify numbers written in dozenal notation.

Symbology and nomenclature are fundamental tools for the user of dozenal notation. Many stumble upon dozenal long before they encounter the Dozenal Societies of America or Great Britain. Most dozenalists have devised their own symbology and nomenclature solutions. The symbols and names the dozenalist devises falls into two principal classifications, described in the 1945 article "The Opposed Principles", *Duodecimal Bulletin* VOL. 1 N^o 3 page Σ_i . The first principle is that of "Least Change", which simply extends the dominant decimal symbology with two transdecimal symbols. For Americans and others in the West, this means extending the Hindu-Arabic set of numerals we are accustomed to in decimal usage. Perhaps for those in India or the Middle East, this would be the extension of their systems by two transdecimal numeral symbols. The second method, "Separate Identity", involves the creation of a completely new system of symbols that may or may not have anything to do with any existing numeral set. Members have devised systems following both Principles. An example of two are included here:

Dudley GeorgeSEPARATE IDENTITY01 \angle 78 \vee \checkmark δ δ \checkmark δ δ </

In the 1940s, all publications required the use of movable type, either in the printing press or on the typewriter. Dies had to be cast in order to print text. So if one desired to print symbols which were foreign to the Latin alphabet, the Hindu-Arabic numerals, and around a couple dozen common signs and punctuation marks, one needed to cast the symbol as type. The Society is fortunate to have had a friend in William Addison Dwiggins, an influential, award winning, and gifted type designer of the early and mid

20th century. Mr. Dwiggins furnished designs for the DSA's transdecimal symbols; these were employed beginning with the first issue of the Bulletin. Their use dominated the subsequent two dozen years. From the very first issue in January 1945, the *Duodecimal Bulletin* employed standard transdecimal symbols and names which remained consistent until just before the break in publication of the *Bulletin* in the early 1970s.

In the mid seventies, Prof. Gene Zirkel restored the *Bulletin* to publication in an age when it seemed the US telephone monopoly might provide a handy pair of transdecimal symbols. We adopted the asterisk ("star") and octothorpe ("pound sign") as dek and el. These symbols had the advantage in that they were rather commonly available on typewriters and later, personal computer keyboards. These could easily be set in type, without resorting to specially-crafted type. The quality of the other characters in the text could be seamlessly matched, because the character sets (ASCII) included * and #.

Today's digital graphics software has developed to the point that enables the *Duodecimal Bulletin* to be produced entirely digitally. This method presents several advantages and opportunities (see "The New Digital *Bulletin*", pages 5–6). This development enables the return of the classic DSA symbology, smoothly integrated into every edition from this point forward. We have decided to return to the "classic" DSA symbols, as Mr. Dwiggins devised them. PITMAN 7 9

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do not intend these symbols as standards commanded on the masses. We continue to respect a long standing policy not to espouse any particular system of symbology and nomenclature. The symbols and language each Member decides to employ remain personal decisions. We believe the best system will arise organically over time. This policy is not expected to change soon. However, in order to furnish a *Bulletin* that can discuss dozenal subjects, a common frame of reference is necessary.



These symbols have a plausible origin. The "dek", was fashioned to echo the Roman usage of X for ten. This symbol perhaps represents "two crossed arms" as Karl Menninger describes in his *Number Words and Number Symbols*. The "el" rotates the flat-topped 3 half a turn to provide a number-like symbol resembling the letter E, which stands for the English "eleven". Though they are not as simple as some characters, they are simple enough. As conceived by Mr. Dwiggins, they have a more "numeral"-like appearance which resonates with the other figures. Their names make sense in English; we are, after all, an American organization. We are comfortable in having our international fellows decide for themselves what is best to suit their cultures and purposes. Perhaps there are better symbols, those which can be written with fewer strokes, those that may be more commonly available among the myriad "glyphs" or characters in the modern typefaces we have installed on our computers. These and other reasons aside, the Dwiggins or "classic" transdecimals remain neutral symbols, fine for the purposes of creating a common frame of reference for the *Duodecimal Bulletin*. **!**!!

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