CUBISM REVISITED

JEFF GRANT
Hastings, New Zealand

In the February 1976 issue of Word Ways, Paul Remley presented an interesting article on three-dimensional word cubes of the sixth order. After re-reading this recently, I decided to attempt a solution using words taken from a single reference only. Mr. Remley stated that he was convinced such a solution existed, and was proved correct when the following cube presented itself after a number of hours delving into the Oxford English Dictionary:

1 REMADE 2 ENAMEL 3 MACULA
ENAMEL NARINE ARENAS
MACULA ARENAS CERITE
AMULET MINIME UNITER
DELETE ENAMOR LATERE
ELATER LESERE ASERED

4 AMULET 5 DELETE 6 ELATER
MINIME ENAMOR LESERE
UNITER LATERE ASERED
LITOTE EMETIN TERENE
EMETIN TORED ERENDE
TERENE ERENDE REDEEM

If you take the letter in the top left corner of the first square (R), then add the corresponding letter in the second square (E), and so on down the line, you end up with the word REMADE, which is the first word on the first level. The same can be done starting from any other letter in the first square.

Encouraged by my early success, I resolved to have a go at the much more difficult problem of a 6 x 6 x 6 non-symmetrical cube, using 108 different words. Many days later, suffering from eye-strain, back-ache and insomnia, I resigned myself to defeat. However, the following "nearly-cube" indicates that a complete solution is almost certainly possible:

1 GRAPEDE 2 REBATE 3 AVATAR
REGALE E LATOR MIMOSA
ALATES MORALI ASISES
MO TIVE APEMEN TISHRI
EVENER DECANI OTEIEN
REDANT ERANES LESERE

Out of the 108 others sources (ones who... The remain... ERE, EDC...

All 75 words to find:
ASENE 11
ATELE a
ATOME 16
COLAR 15
ENED 15
ERERE a
GAVOT 15
LENIN 15
MOT 11
NOTEN 1
RENED 21
SARED 1

A complete words, having solution even... seventh or...
Presented the sixth part a solution: ey stated proved correct; hours delivery.

Out of interest, I decided to attempt a non-symmetrical cube of the fifth order. After much intensive dictionary-scanning, the following solution came to light:

```
4 SETTLES PREDISON 6 SERENE
OTENES RETERERE ASERES
TESSES ESTALE STARES
INTUSE COELAR ORELE
LEALES ORLEGEE NEERER
ESSART STERES ESSSEE
```

Of the 108 words used, 93 can be found in the OED, 4 are taken from other sources, and 5 are logically contrived words, such as ERRERS (ones who err) and ASERER (something that "asere" -- dries up). The remaining 6 appear to be non-words: OTEIEN, IMHULE, ENIERE, EDOLON, ECEALE, ENEEGE.

Out of interest, I decided to attempt a non-symmetrical cube of the fifth order. After much intensive dictionary-scanning, the following solution came to light:

```
1 STRAP 2 ARECA 3 TAMAL
AREN A GAVOT OVATE
LAVAL ANELE NITON
AMENE MINAL ELEM I
SALAD ASERE RES E
```

All 75 words are taken from the OED, although some are a bit hard to find:

ASENE listed as ASEN(= past participle of the archaic verb "asere"
ATELE a form of "atele", an obs. adj. meaning 'terrible, hideous, foul' (see 1230 quote)
ATOME 16th-18th century form of "atom"
COLAR 15th-16th century form of "collar"
ENIDE an early variant of "ende", a duck
ENELE a 15th-century spelling of "anle"
ERARE 14th-16th century Scottish form of "erer", sooner
GAVOT an early variant of "gavotte"
LENIN mentioned in the meaning of "Leninist", etc.
NOTER 13th-century form of the archaic verb "note", meaning 'to use or make use of (something)'
RENED 15th-16th century spelling of "reined"
SARED an early Northern and Scottish form of "sored"

A complete non-symmetrical 6 x 6 x 6 cube, with 108 different words, has not yet been devised, but I am certain someone will find a solution eventually. Then it will be onward and upward to cubes of the seventh order, and maybe even beyond!