

## 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	R E M A D E E N A M E L M A C U L A	2	E N A M E L N A R I N E A D E N A S	3	M A C U L A A R E N A S C E P T I F
	E L A T E R		L E S E R E		A S E R E D
4	A M U L E T M I N I M E U N I T E R L I T O T E E M E T I N T E R E N E	5	D E L E T E E N A M O R L A T E R E E M E T I N T O R I E D E R E N D E	6	E L A T E R L E S E R E A S E R E D T E R E N E E R E N D E R E D E E M

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	G R A P E D R E G A L E A L A T E S M O T I V E E V E N E R R E D A N T	2	R E B A T E E L A T O R M O R A L I A P E M E N D E C A N I E R A N E S	3	A V A T A R M I M O S A A S I S E S T I S H R I O T E I E N L E S E R E
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4	S E T I L E	5	P R E S O N	6	S E R E N E
	O T E N E S		R E T E R E		A S E R E S
	T E S S E S		E S T A L E		S T A R E S
	I N T U S E		C O E L A R		O R D E L E
	L E A L E S		O R L E G E		N E E R E R
	E S S A R T		S T E R E S		E S S S S E

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 "aseres" -- 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	S T R A P	2	A R E C A	3	T A M A L
	A R E N A		G A V O T		O V A T E
	L A V A L		A N E L E		N I T O N
	A M E N E		M I N A L		E L E M I
	S A L A D		A S E R E		R E S E N

  

4	E S I L E	5	D E T E R
	R E D E N		A L E N E
	A M E S E		R A S E S
	R E N E D		E T T L E
	E N T R E		D E S E S

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

ASENE listed as ASEN(E - past participle of the archaic verb "asee"  
ATELE a form of "atel", an obs. adj. meaning 'terrible, hideous, foul' (see 1230 quote)  
ATOME 16th-18th century form of "atqm"  
COLAR 15th-16th century form of "collar"  
ENEDE an early variant of "ende", a duck  
ENELE a 15th-century spelling of "anele"  
ERARE 14th-16th century Scottish form of "erer", sooner  
GAVOT an early variant of "gavotte"  
LENIN mentioned in the meaning of "Leninist", etc.  
NOTEN 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!