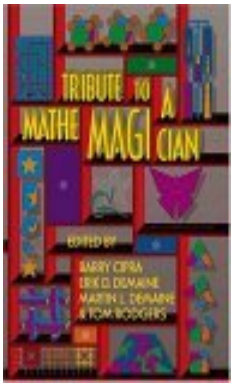
Barry Cipra, Erik Demaine, Martin Demaine, Tom Rodgers (eds.) *Tribute to a magician*, A K Peters, Wellesley, MA, 2004. 350 pages. Hard cover, ISBN 1-56881-204-3, 38 USD.



It has been explained in the review of *Puzzler's tribute. A feast for the mind*, A K Peters, 2002 (This Newsletter, number 43, p. 11), that there is a bunch of enthusiastic puzzlers, magicians, mathematicians, all admirers of Martin Gardner, the godfather of recreational mathematics, that meet every two or three years to exchange ideas and share their common interest. The previous book was based of the previous three of these *Gatherings for Gardner* (G4G2, G4G3, G4G4). The present one is based on G4G5, held in Atlanta on April 5-7, 2004. Since G4G4, a lot of information and interesting links are available at their web site `http://www.g4g4.com`.

This volume has the same structure as the previous one.

It begins with obituaries of two of their members: Edward Hordern (1941-2000) and Nobuyuki Yoshigahara (1936-2004). Hordern was not only a devoted puzzler, but he had also one of the biggest puzzle collections. Nobuyuki Yoshigahara, best known as Nob, is author of some 80 puzzle-related books (see e.g. *Puzzles 101, a puzzlemaster's challenge* reviewed in this Newsletter, number 48, p. 12).

As in the previous volume, this collection also contains an amalgam of different sorts of texts. Since this was the G4G5 meeting, the pentagram is a general theme, but it is certainly not restricted to it. There are for example 5 categories of puzzles, each collected in a separate chapter. Some historical Chinese ceramic puzzle vessels, and interlocking puzzles from Mongolia are described in "braintreasures". The next level are "brainticklers" which include for example fold-and-cut magic, measuring time with a three-legged hourglass, but also Gödel-like puzzles. The "brainteasers" need a longer time to play or to solve. There are sliding coin puzzles, a cryptogram, and riddle-like teasers. There is usually more theoretical background when the problems become more involved like in the "braintempters" section. For example how large should a word list be if you wanted to form an $n \times n$ block of letters, such that every line and every column is a genuine (English) word? Furthermore, you can find winning card sequences for black jack, but also all sorts of jigsaw-like puzzles with pentominos, polyominos, and generalizations. Finally the "braintaunters" are the real challenge. There is the Panex puzzle (see `http://www.baxterweb.com/puzzles/panex/`), which at first sight looks like the Towers of Hanoi, but it is quite different, there are hinged dissections and generalizations (see also This Newsletter, number 46, p. 8-9 for flexagons, and number 44, p. 10 for hinged dissections or `http://www.cs.purdue.edu/homes/gnf/book.html`), the complexity analysis of sliding block puzzles (see the applet on `http://www.puzzlebeast.com/slidingblock/index.html`) and more.

In a last chapter called "braintools", some mathematical and computational aids for the design and solution of puzzles are given. There is the Pólya-Burnside Lemma which can give the number of solutions in combinatorial problems, computer algorithms for sliding block puzzles, folding techniques for origami problems etc.

Again a book which is like a magic box, full of tricks for any puzzle lover.

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