

# Contents

Preface .....	v
The Strens Collection .....	1
Eugène Louis Charles Marie Strens .....	5

## Part 1: Tiling & Coloring

Frieze Patterns, Triangulated Polygons and Dichromatic Symmetry, <i>H. S. M. Coxeter &amp; J. F. Rigby</i> .....	15
Is Engel's Enigma a Cubelike Puzzle? <i>J. A. Eidswick</i> .....	28
Metamorphoses of Polygons, <i>Branko Grünbaum</i> .....	35
SquaRecurves, E-Tours, Eddies, and Frenzies: Basic Families of Peano Curves on the Square Grid, <i>Douglas M. McKenna</i> .....	49
Fun with Tessellations, <i>John F. Rigby</i> .....	74
Escher: A Mathematician in Spite of Himself, <i>D. Schattschneider</i> .....	91
Escheresch, <i>Athelstan Spilhaus</i> .....	101
The Road Coloring Problem, <i>Daniel Ullman</i> .....	105
Fourteen Proofs of a Result About Tiling a Rectangle, <i>Stan Wagon</i> .....	113
Tiling $R^3$ with Circles and Disks, <i>J. B. Wilker</i> .....	129

## Part 2: Games & Puzzles

Introduction to Blockbusting and Domineering, <i>Elwyn Berlekamp</i> .....	137
A Generating Function for the Distribution of the Scores of all Possible Bowling Games <i>Curtis N. Cooper &amp; Robert E. Kennedy</i> .....	149
Is the Mean Bowling Score Awful? <i>Curtis N. Cooper &amp; Robert E. Kennedy</i> .....	155
Recreation and Depth in Combinatorial Games, <i>Aviezri S. Fraenkel</i> .....	159
Recreational Games Displays Combinatorial Games, <i>Aviezri S. Fraenkel</i> .....	176
Combinatorial Toys, <i>Kathy Jones</i> .....	195
Rubik's Cube—application or illumination of group theory? <i>Mogens Esrom Larsen</i> .....	202

Golomb's Twelve Pentomino Problems, <i>Andy Liu</i> .....	206
A New Take-Away Game, <i>Jim Propp</i> .....	212
Confessions of a Puzzlesmith, <i>Michael Stueben</i> .....	222
Puzzles Old & New: Some Historical Notes, <i>Jerry Slocum</i> .....	229

### Part 3: People & Pursuits

The Marvelous Arbelos, <i>Leon Bankoff</i> .....	247
Cluster Pairs of an $n$ -Dimensional Cube of Edge Length Two, <i>I. Z. Bouwer &amp; W. W. Chernoff</i> .....	254
The Ancient English Art of Change Ringing, <i>Kenneth J. Falconer</i> .....	261
The Strong Law of Small Numbers, <i>Richard K. Guy</i> .....	265
Match Sticks in the Plane, <i>Heiko Harborth</i> .....	281
Misunderstanding My Mazy Mazes May Make Me Miserable, <i>Mogens Esrom Larsen</i> .....	289
Henry Ernest Dudeney: Britain's Greatest Puzzlist, <i>Angela Newing</i> .....	294
From Recreational to Foundational Mathematics, <i>Victor Pambuccian</i> .....	302
Alphamagic Squares, <i>Lee C. F. Sal lows</i> .....	305
Alphamagic Squares: Part II, <i>Lee C. F. Sal lows</i> .....	326
The Utility of Recreational Mathematics, <i>David Singmaster</i> .....	340
The Development of Recreational Mathematics in Bulgaria, <i>Jordan Stoyanov</i> .....	346
$V - E + F = 2$ , <i>Herbert Taylor</i> .....	353
Tracking Titanics, <i>Samuel Yates</i> .....	355
List of Conference Participants .....	363